

1                   IN THE UNITED STATES DISTRICT COURT  
2                   FOR THE EASTERN DISTRICT OF TENNESSEE  
3                   NORTHERN DIVISION, AT KNOXVILLE, TENNESSEE

3   George Chesney, Jot Raymond,                                 :  
4   Anita Auchard, Lee Scofield,                               :  
5   James Campbell, et., al.,                                    : **VOLUME I**  
6                   Plaintiffs,                                   :  
7   Vs.    : CV  
8   : 3-09-09  
9   Tennessee Valley Authority                                 : 3-09-48  
10    : 3-09-54  
11                   Defendant,                                   : 3-09-64  
12    : 3-09-517

13                                 Transcript of trial proceedings before the  
14                                 Honorable Thomas A. Varlan on September 19, 2011.

15                                 **ON BEHALF OF THE PLAINTIFFS:**

16                                 Jeff Friedman  
17                                 Gary A. Davis  
18                                 David B. Byrne, III  
19                                 Paul D. Brandes  
20                                 Elizabeth A. Alexander  
21                                 A. Brantley Fry  
22                                 Joanne M. McLaren  
23                                 Jeff Matt Conn  
24                                 L. Jeffrey Hagood  
25                                 Wayne A. Ritchie, III  
                               Todd Monday  
                               Attorneys at Law

**ON BEHALF OF THE DEFENDANT:**

                               Edwin Small  
                               Elizabeth Ward  
                               Brent Marquand  
                               James Chase  
                               David Ayiffe  
                               Mark Anstoetter  
                               Peter Shea  
                               Attorneys at Law

                               Jolene Owen, R.P.R.  
                               800 Market Street, Suite 131  
                               P.O. Box 2201  
                               Knoxville, Tennessee, 37901  
                               (865) 384-6585

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1 THE COURT: Thank you. Good morning  
2 everyone. I know we are kind of crowded this morning.  
3 I hope everyone who wants to be inside the courtroom has  
4 been able to find accommodations.

5 We have handled various preliminary  
6 matters on Thursday of last week. We are ready for  
7 opening statements this week.

8 Since I know we have some plaintiffs and  
9 some media and other interested observers, I know there  
10 has been some confusion because we have this the  
11 September cases, we have the November cases, we have  
12 Phase 1, we have Phase 2. It might for everyone's  
13 benefit and counsel in these cases, if we have a  
14 different prospective. This is Phase 1 or the liability  
15 phase of the September group of cases represented ably  
16 by all of the individuals attorneys in the courtroom  
17 today.

18 We have a second set of cases that were  
19 filed after, basically after all of these cases that we  
20 have scheduled for a separate trial in November. The  
21 November trial is not Phase 2 or damages phase of these  
22 cases. The November trials are separate, or cases  
23 separate from those for which we are in the courtroom  
24 today. As the attorneys in those cases know, after we  
25 finish this case I plan to sit down with them, obviously

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1 as well as with the TVA attorneys, and talk about  
2 potentially whether certain evidence from this case will  
3 be used in that case and so on and so forth. In  
4 November we have scheduled a separate group of cases  
5 that were filed sometime after these initial cases.

6 Both the September, what I am calling the  
7 September trial, i.e., these cases and the November  
8 cases are Phase 1 or a liability phase. The Court since  
9 these are bench trials, the Court pursuant to our  
10 federal rules is then required to take the matters under  
11 advisement and issue findings of fact and conclusions of  
12 law. Like a jury, we don't come back and announce  
13 verdict for plaintiff or defendant. After this trial is  
14 over and the November trials are over, the parties will  
15 have the opportunity to order the transcript, submit  
16 post-trial briefs and revisions to their submitted  
17 proposed findings of fact and conclusions of law. That  
18 will all be done.

19 The bottom line is it will be sometime  
20 next year before decisions will actually be rendered by  
21 the Court on the Phase 1 portions of both the September  
22 cases and the November cases.

23 Then again, depending on the Court's  
24 ruling on Phase 1, if these cases were to proceed to  
25 Phase 2, you know, those would be scheduled accordingly.

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1 That Phase 2 is the damages phase both for these cases  
2 as necessary, as well as for the November cases as  
3 necessary.

4 Any, did I get that right, counsel?

5 MR. SMALL: Yes, Your Honor.

6 THE COURT: All right. Okay. With that  
7 being said, we are ready to proceed, unless there is any  
8 preliminary, unless there are any preliminary matters,  
9 we are ready to proceed with opening statements in the  
10 cases pending before the court.

11 I believe, Mr. Friedman, you will render  
12 opening statement on behalf of all of the plaintiffs?

13 MR. FRIEDMAN: Yes, Your Honor, may it  
14 please the Court.

15 Your Honor, on the early morning hours of  
16 December 22nd, 2008, life would change for hundreds of  
17 families in Kingston, Tennessee. When the dikes at the  
18 Kingston facility came crashing down in an instant, the  
19 lakeside and recreation and retirement community of  
20 Kingston, Tennessee overnight and in an instant became  
21 an environmental cleanup site. The damage was a  
22 tragedy, the likes of which this state and this nation  
23 has never seen.

24 The real tragedy besides the damage that  
25 was caused is that what happened out there on December

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1 22nd, 2008, was one hundred percent avoidable, was one  
2 hundred percent preventable and was one hundred percent  
3 a man-made disaster caused by the TVA as a direct result  
4 of their negligent conduct.

5 Your Honor, I am one of the attorneys  
6 representing the many families of people who were  
7 damaged out there. Together we are here today to begin  
8 the Phase 1 of the trial to prove that the TVA's  
9 nondiscretionary conduct, that is, conduct for which  
10 they are not immune from liability, was a substantial  
11 factor in causing the coal ash disaster in Kingston.

12 We believe, Your Honor, that the evidence  
13 will show that the TVA was negligently failing to train  
14 and inform its personnel on the applicable coal ash  
15 policies and procedures in force and effect at the time.

16 We believe the evidence will show that the  
17 TVA was negligent and inadequate in failing to inform  
18 its personnel of the applicable policies and procedures.

19 We believe the evidence will also show  
20 that the TVA was negligent in the actual construction  
21 and building of the dikes that failed and that they were  
22 not built as designed and instructed.

23 Lastly, we believe that the evidence will  
24 clearly show that the TVA was negligent in failing to  
25 perform needed and necessary maintenance.

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1                   Now, our case is a little bit unusual from  
2 a lot of civil cases in that we intend to prove our case  
3 using nearly one hundred percent of the evidence created  
4 and supplied by the defendant, TVA. We are going to do  
5 that by admitting TVA's own documents, using testimony  
6 from their witnesses, bringing their reports and the  
7 testimony from the Tennessee Valley Authority Inspector  
8 General and his office. We intend to introduce the TVA  
9 Board-authorized investigation by McKenna, Long and we  
10 also plan to prove our case through the Tennessee Valley  
11 Authority's own admissions, their public statements,  
12 their conduct and even their pleadings, and, then, Your  
13 Honor, we intend to wrap all this up by offering expert  
14 testimony by Dr. Dan Marks and Mr. Gary Brown.

15                   To understand how all this evidence is  
16 going to fit together we would like to take just a  
17 minute, if it pleases the Court, to talk about the basic  
18 background that's in interplay here.

19                   The Kingston plant was built in the 1950s.  
20 At the time it was designed and built to be the largest  
21 coal burning electrical producing plant in America. It  
22 was a huge plant. It consumes vast amounts of coal;  
23 14,000 tons per day of coal burned out there. That's a  
24 lot of coal.

25                   More importantly for our case, that's a

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1 lot of coal ash.

2                   They had to put it somewhere. They mixed  
3 it with water and they pumped it originally into an old  
4 pond. That went on for years. The pond got filled up.  
5 Afterwards they encircled it with dikes, which they  
6 called a containment facility. Then after more years  
7 the dikes filled up.

8                   By the mid eighties the impoundment that  
9 held the ash, it was almost full. They didn't know  
10 where to go. Someone at TVA had the idea to build dikes  
11 on top of dikes, to go vertical and to build a structure  
12 to hold eventually billions of gallons of coal sludge.  
13 They did not use concrete, they did not use steel, but  
14 they used coal ash, wet soggy coal ash, to contain other  
15 coal ash.

16                   Eventually nearly ten stories high an 84  
17 acre containment facility not unlike building a pyramid,  
18 but this pyramid was built without any support other  
19 than what was out there from the coal ash.

20                   There were problems with it, problems that  
21 were brought time and time again to the TVA's attention.  
22 Finally these problems grew to such a point that on  
23 December 22nd of 2008 it came crashing down. 1.2  
24 billion gallons of coal sludge escaped with force, not  
25 just seeping out, but with force sufficient enough to



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1 create a 50 foot high wave of sludge. It took out  
2 roads, power lines, railroad tracks, houses, boat docks,  
3 all in an instant with such force and with such  
4 repercussions that it was the largest environmental  
5 disaster in history in Tennessee and America at the time  
6 it happened.

7 The disaster was shocking to everyone who  
8 heard about it. Shocking to the public.

9 The people living around the facility  
10 didn't know what was happening. They thought it was an  
11 earthquake or a natural disaster.

12 The TVA had warnings and reasons to  
13 believe that what happened on December 22nd, would  
14 eventually occur. The first of these signs and where it  
15 is most apparent is TVA's negligent failure to train and  
16 inform its people on the policies that were in place to  
17 prevent the December disaster.

18 In discussing what we believe the evidence  
19 will show concerning the TVA's negligent failure to  
20 inform and train its personnel, we would like to start  
21 at perhaps the most obvious point in the chain of  
22 failure and that is an Annual Ash Pond Dike Stability  
23 Inspection that took place in October of 2008. This  
24 inspection took place just two months before the  
25 disaster. It took place pursuant to rules created by

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1 the TVA to take a comprehensive stability inspection  
2 every year to be taken and be undertaken by qualified  
3 and trained engineers.

4 The author of the report, who told the  
5 office of the TVA Inspector General that he was the lead  
6 engineer on the report, was a man by the name of Chris  
7 Buttram. He offered the report, he signed it on behalf  
8 of TVA and he accepted the responsibility of putting  
9 together this comprehensive timely informative stability  
10 and inspection report.

11 Now, you have heard the requirements. Let  
12 us tell you what we expect the evidence to show about  
13 this report. The stability inspection of October 20th,  
14 2008, was authored by an engineer who had never seen a  
15 coal ash facility before. Never been to one. He had  
16 never when on a dike. He never designed one. He had  
17 never seen any plans for a dike. He didn't know any  
18 rules, any regulations, any policies. All he was told  
19 was to be there, to show up on the day in question,  
20 October 20th.

21 When he got there he didn't know what to  
22 do. He didn't know why he was there and he didn't know  
23 whether or not what he was doing was even important even  
24 after the inspection was over.

25 He met two other employees, a Mr. Albright

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1 and Mr. Dotson. The team progressed and walked around  
2 the dikes. They had no designated leader. They simply  
3 handed Mr. Buttram an old report from the year before  
4 and said here, take this, make some notes.

5 The two men who accompanied Mr. Buttram  
6 did not consider themselves to be his teacher or  
7 instructors. One of the men, the man who wrote the  
8 prior year's stability inspection, said he wasn't even  
9 there to inspect at all and he considered the Annual Ash  
10 Pond Dike Stability Inspection report to be a misnomer  
11 because that's not what it was at all to him.

12 They testified that these three men got  
13 there about mid-morning. They walked around for about  
14 an hour and then they broke for lunch. Took an hour and  
15 a half lunch break and then came back approximately two  
16 more hours and all left before the end of daylight.

17 We believe that the evidence will show  
18 that a competent trained engineer or group of engineers  
19 would take days to perform the stability inspection to  
20 comply with what had to be done out there. As a result,  
21 this exercise that the men went on on October 20th  
22 instead of being one of the last best chances for TVA to  
23 avoid disaster was an event punctuated by untrained,  
24 unqualified, untimely and incompetent work.

25 The mistakes that took place in the

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1    October inspection are critical here because pictures  
2    were made out there at the time.  Pictures that after  
3    they were taken were sent to a computer, a desktop  
4    computer, and never looked at until after the disaster.  
5    Those pictures identified certain things that Mr. Dotson  
6    referred to as "sloughs."

7                    Now, there is a whole glossary of terms,  
8    Your Honor, that we will use.  They are geotechnical  
9    terms.  One of them that I have learned, and we believe  
10   the evidence will show, is a term called "sloughs."  
11   Those sloughs are areas where the side of the dikes give  
12   out and slide down.

13                   Mr. Dotson on his report he identified  
14   example after example of sloughs.  He put those, he  
15   corresponded the sloughs he saw with a GPS report and  
16   pictures were also made.  Not all the sloughs pictures  
17   were made, but some of them, and certainly crucial ones.  
18   These sloughs took place at the precise point of failure  
19   that is agreed to even by the TVA's own experts.

20                   Sloughs are points where there is internal  
21   erosion.  You see from the picture in front of us there  
22   is no erosion above this slough.  That is the upward,  
23   the top of the picture is the uphill side of the dike.

24                   Then you get halfway down the dike and  
25   suddenly there's a hole where water is forcing itself

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1 through the dike and taking parts of the dike and  
2 blowing it out. There were pictures of these crucial  
3 things that sat on Mr. Buttram's desk. They sat there  
4 for two months after the disaster. Then they sat there  
5 another month.

6           You see, we expect the evidence to show  
7 that the stability inspection sat around for two months  
8 after the inspection took place and then the disaster  
9 occurred. Then after the disaster occurred Mr. Buttram  
10 was questioned on why wasn't the report done. He told  
11 the officers, the officers of the Inspector General's  
12 Office, that he had started it, but in his deposition he  
13 admitted they hadn't started it at the time of this  
14 disaster. It wasn't even put together.

15           In the report Mr. Buttram and his  
16 colleagues wrote that the repairs to the dike, which  
17 were the significant sloughs, should be repaired  
18 immediately. The testimony in the case is that these  
19 sloughs should have been repaired immediately and they  
20 wanted to get the attention of the maintenance people at  
21 the facility, but they didn't. The sloughs weren't  
22 repaired.

23           In fact, when Mr. Buttram put this report  
24 together and took pictures of the sloughs, the words  
25 "repair immediately" was deleted from the report by the

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1 TVA Media Relations Department. The document was  
2 sanitized and edited so the truth would not be known.

3 Other things were seen, but ignored, in  
4 October of 2008; drains broken, but not repaired, red  
5 water seepage. Red water is another term for water that  
6 seeps through the dikes. Polluted water is seeping  
7 through the dikes and is tainted with the residue of  
8 spent fossil fuels. Documented, but not addressed.

9 And a wet spot in the area of dike failure  
10 was identified and again, not addressed. A wet soft  
11 spot indicating the dikes were soggy.

12 To a trained professional all this  
13 information was critical. There was still time to act  
14 in October of 2008 to prevent disaster, if these repairs  
15 would have been made, if things would have taken place  
16 in short order, but they weren't. The dikes to a  
17 trained professional -- we are going to put on evidence  
18 to show that the dikes in the area of the failure were  
19 in an advancing failure mode and the TVA's failure to  
20 train inspectors to recognize the sign of failures, to  
21 follow the rules and regulations, was a substantial  
22 factor in the cause of the disaster of December 22nd,  
23 2008.

24 Secondly, Your Honor, one of the other  
25 areas we intend to address is negligent or inadequate

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1 performance by TVA personnel of TVA's policies and  
2 procedures concerning coal ash.

3 One of the things that the TVA did do that  
4 they were put on notice of in the 50 year history of the  
5 Kingston facility is that you have got to control the  
6 water on these dikes. These dikes are nothing but coal  
7 ash, nothing but material piled on top of material. You  
8 can't stack coal ash to be built like something you  
9 build out of concrete or blocks or steel. You have to  
10 stack this right. Water is the enemy. Water that is so  
11 crucial to preserve and to establish life is the death  
12 knell for these dikes that are built out at Kingston.  
13 It causes external erosion, internal erosion, pressure  
14 inside the dikes behind the walls, underneath them and  
15 this pressure is working, never taking a day off, 365  
16 days a year, 24 hours a day, seven days a week. The  
17 pressure is there and it is growing. It is caused by  
18 water and it has to be controlled.

19 As a matter of fact, in the early morning  
20 hours following the disaster on December 22nd, while the  
21 media was looking for seismic events and while the  
22 Inspector General's Office was looking for a terrorist  
23 event or some kind of someone attacking these dikes, the  
24 TVA internally at four in the morning they knew what the  
25 cause was. They knew where to look. They looked at

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1 their well sites, their piezometers and their evidence  
2 of water build up. That evidence told them what they  
3 already knew. You let dikes get too big, too much water  
4 behind them, too soggy, and with such force of that  
5 water that was behind them, they literally liquified the  
6 dike that blew out. They turned it to liquid from all  
7 the pressure.

8                   How did TVA know at four in the morning  
9 where to look and what the probable cause of the failure  
10 was? They know this because it had happened before.  
11 Not on the same scale, but they had had what the TVA  
12 refers to -- and this is the TVA's word. They had  
13 "blowouts;" dike blowouts in 2003 and 2006. These are  
14 blowouts out of the side of the dike that one of the TVA  
15 witnesses said, described them as a volcanic event.

16                   These blowouts also don't occur all the  
17 time. They only occur in the wet fall months. Matter  
18 of fact, both of the prior blowouts occurred in October.  
19 They both occurred when water was building up behind the  
20 dikes.

21                   We are not just talking rainwater. The  
22 water that builds up behind the dikes -- let there be no  
23 mistake that water is sluiced. It is pumped there to  
24 get the spent ash out of the coal burning facility and  
25 into the containment. They are pumping water in. The



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1 problem with the wet fall months is that there is no  
2 evaporation going on and there is a lot of rainwater  
3 adding to that.

4 As a result, these two blowouts and the  
5 implications that those two prior blowouts brought with  
6 them, TVA went to its contractors and they said, we got,  
7 we can't have another one of these. The results could  
8 be catastrophic. Their contractors put together, as a  
9 result of the 2003 blowout and added to it following the  
10 2006 blowout, an early warning system.

11 They drilled into the dikes and they put  
12 pipes called piezometers. These piezometers are put  
13 inside the dikes to measure the water buildup because  
14 you see, when the level of water exceeds the slope of  
15 the dike you are approaching, by TVA's own rules and  
16 regulations, are approaching failure, dike failure.

17 This early warning system was successful.  
18 As a matter of fact, it was run for eight months by an  
19 independent contractor for the TVA in 2006, and in 2007.  
20 And what did the independent contractor tell them in the  
21 fall of 2007 after they ran the early warning system?  
22 The evidence will show that the contractor said, TVA,  
23 you got to stop in the fall. You got to stop sluicing  
24 ash behind these dikes because you have a critical  
25 buildup, a dangerous buildup. It is recorded on their

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1 data screen.

2 In 2007 an order was made based on the  
3 information on the printouts on their screens and what  
4 the independent contractor determined, the word went out  
5 we have to stop pumping ash behind these dikes. TVA  
6 did. They averted disaster.

7 Unfortunately, the independent contractor  
8 handed off responsibilities for monitoring the water  
9 levels to the TVA.

10 When the TVA took over the monitoring, we  
11 believe the evidence will show that the monitoring  
12 equipment fell into disrepair. Piezometers and well  
13 monitors were mowed down by tractors. As many as half  
14 of them were not in working order. Data was ignored.  
15 It was overlooked. TVA had a strict policy to monitor  
16 water buildup, but they didn't. As a matter of fact, we  
17 believe the evidence will show that in this early  
18 warning system at the crucial time where the buildup was  
19 occurring behind the north dike at the most vulnerable  
20 location, no one was even looking at the buildup at the  
21 three crucial points on the north dike, the point where  
22 the dikes ultimately failed.

23 Thirdly, you can see the three monitoring  
24 wells up on the screen right now. These are monitoring  
25 wells where seepage was often reported, red water

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1 seepage. That happens to be the point where the dike  
2 failed, the north dike failed, the dredge cell dike  
3 failed.

4 The man in charge monitoring those dikes  
5 and inputting the data of the dikes is the same person  
6 who is responsible for writing the stability analysis,  
7 Mr. Buttram, who will testify he didn't even know  
8 monitoring was going on on the north sides of the dikes.  
9 He didn't even know.

10 Thirdly, we believe the evidence will show  
11 that TVA was negligent in the construction and  
12 implementation of approved design and construction  
13 plans.

14 Your Honor, if I can back up just a  
15 minute. I have talked a lot about dikes and  
16 geotechnical terms. We believe the evidence in this  
17 case will show, if I can use a metaphor, if the Court  
18 will allow me that, building a dike is like building  
19 character. You have got to start with a strong  
20 foundation. You have got to build a core. You have to  
21 prepare or steel your character or dike to be prepared  
22 to deal with hardship. None of those things were done  
23 in Kingston.

24 When the TVA decided to go upward, when  
25 the original pond and the original containment facility

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1 was filled up, when the decision was made to build dikes  
2 on top of dikes, TVA's engineers warned that the  
3 exterior dikes, the dikes surrounding the containment  
4 facility, are not designed for additional interior loads  
5 which may occur, as a result of the future dredging  
6 operation.

7               The engineers with responsibility for  
8 looking at this situation said these designs -- we are  
9 not comfortable with going vertical. By April of 1985  
10 the Director of Engineering stated regarding raising  
11 dredge cells, "as you are aware, these dikes were not  
12 built according to drawings."

13              The Director of Engineering is sounding  
14 and alarm right there. These dikes, the foundation, the  
15 strong foundation for everything you are doing going  
16 upward were not built -- the TVA, Director of  
17 Engineering pointed out to those building the dikes that  
18 the dikes were not built with the proper factor of  
19 safety. The as-built factor of safety for the dikes was  
20 approximately 1.2, plus or minus. Now, keep in mind  
21 that structural failure is 1.0.

22              The Director of Engineering said because  
23 the dikes weren't built to start with, they have got a  
24 factor of safety that is lower than 1.5, which is the  
25 minimum industry standard. If you are going to build on

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1 top of those dikes that weren't built to the minimum  
2 industry standard to start with, then you have to build  
3 them very very strictly in accordance with engineering  
4 drawings.

5 The engineering drawings that are  
6 identified as Attachment C, which is the first plan for  
7 raising the dredge cells out of the ground, said you've  
8 got to build these new dikes that you are building on  
9 top of existing dikes with a 60 foot wide top. You have  
10 to build them out of compacted bottom ash, which is not  
11 the same as fly ash which is a light ash. You have to  
12 get the ash from the very bottom and then you have to  
13 compact that to build the dikes and then you have to  
14 build them to a ratio of five feet of slope for every  
15 one foot of elevation.

16 Well, the construction after those  
17 instructions were done, that design was drawn, the  
18 construction proceeded. As the dikes were built and the  
19 results were in it was determined that they weren't  
20 built according to plans. Instead of a 60-foot wide top  
21 they had a 12-foot wide top. Instead of being built  
22 with compacted ash, they were built with weak  
23 uncompacted fly ash. They were too steep. As a result,  
24 these dikes didn't meet the minimum as-built factor of  
25 safety. The dikes were too narrow, too weak, too steep

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1 with a reduced factor of safety and vulnerable to  
2 crashing.

3           There was also a total lack of oversight,  
4 as the facility went vertical. The engineers, the same  
5 engineers who said this is a problem, you can't deviate  
6 from the drawings, didn't follow engineering to make  
7 sure drawings were followed. Small deviations became  
8 large deviations. Plans were eventually disregarded and  
9 actually made obsolete.

10           On the one hand, while the TVA didn't  
11 follow the plans they had and the engineers didn't  
12 monitor to make sure the plans were followed, the people  
13 building the dikes did not create what is termed  
14 "as-built drawings." As a result, there is no record of  
15 the way these dikes were built, even as we stand here  
16 today. No official acknowledgment of the errors was  
17 ever made.

18           All the public could see is that the dikes  
19 were coming up out of the ground one story after the  
20 other. The people there around the plant had a false  
21 sense of security that things were going to be done  
22 right. The people in the community trusting TVA as a  
23 good corporate and government citizen, had no idea the  
24 danger they were in and what was being done.

25           Compaction tests which are crucial from an

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1 engineering standpoint to make sure you are getting the  
2 right kind of basic stability in a dike, were not done.

3           The importance of proper construction is  
4 well known to TVA's engineers. You see, they had a  
5 heads up. The Engineering Department in 1975 contracted  
6 out with a company by the name of Singleton Labs.  
7 Singleton Labs went out and looked at the impoundment  
8 facility and made some findings and put Engineering and  
9 TVA on notice of that. They said this. "As ash fill  
10 depth increases, the ash weakens. Where the ash meets  
11 the ground, it becomes soft. You can expect --  
12 Singleton Labs tells TVA -- you can expect significant  
13 weakness with dikes built on the ash pond at some point  
14 even approaching a liquid state."

15           Despite these findings Engineering allowed  
16 the dikes to be built for a foundation for more dikes  
17 and then the dikes that are built the evidence will show  
18 one on top of another like a layer cake were  
19 progressively built in disregard to the plans and  
20 specifications that were established.

21           We believe the evidence will show that the  
22 TVA was negligent in failing to build its dikes in  
23 accordance with the plans and specifications and TVA was  
24 negligent in failing to monitor and implement necessary  
25 plans and specifications and these were significant

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1 factors in the coal ash disaster.

2           The fourth thing we expect the evidence to  
3 address is going to be failure to perform maintenance or  
4 negligence in performing maintenance. You see there is  
5 a correlation, a direct correlation between building  
6 dikes upward and the importance of good maintenance  
7 practices. Because as the dikes raised up out of the  
8 ground and became taller and taller the pressure behind  
9 the dikes increased as well. The more water that is  
10 contained in these vertical structures, also the more  
11 pressure that is created against the walls.

12           Maintenance issues that were routinely  
13 overlooked and even disregarded in the seventies and  
14 eighties and nineties became dangerous components of  
15 failure at this facility. This facility growing to the  
16 size of a nine or ten story building, the failure of the  
17 dikes released an amount of coal ash that would fill  
18 Neyland Stadium 16 times. That's just what was  
19 released. There is another 16 times that amount that  
20 was left out there that didn't flow into the rivers and  
21 lakes. But all that coal ash was building upon itself  
22 creating pressure, pressure, pressure that never took a  
23 day off.

24           To contain that pressure it takes a  
25 commitment to maintenance, but the commitment wasn't



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1 there. You see there was a commitment to writing down  
2 maintenance issues on paper, but as the Office of the  
3 Inspector General at TVA found, those paper reports  
4 became what the Inspector General referred to as "legacy  
5 issues."

6           It's a curious term. We asked about that  
7 in discovery. We learned that a legacy issue, as far as  
8 maintenance is concerned, is something, a list kind of  
9 like the list of chores my wife has for me. It gets  
10 longer and longer and I never scratch anything off.  
11 These legacy issues are, examples of legacy issues by  
12 the OIG were; found seepage, red water, signs of water  
13 coming through the dikes, erosions, gullies, roughs,  
14 rills, erosion on the outside and inside of the dikes,  
15 tree growth. Embankments that should never have a tree  
16 on them had trees growing in them with root systems that  
17 when you pull them out it weakens the dike itself and  
18 when you cut the tree off the roots decay and  
19 destabilize the dike.

20           Another example of failure to do  
21 maintenance is the piezometers. These are the things  
22 that, these are the part of the early warning system  
23 that are put inside the dikes to tell when the dikes are  
24 getting too saturated. They were mowed down by  
25 tractors, knocked down, fallen into disrepair so they

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1 weren't functional.

2           As the two independent investigating  
3 bodies McKenna, Long and OIG looked at this found that  
4 TVA had a problem with reporting maintenance issues that  
5 were never acted upon and never repaired in a timely  
6 manner.

7           Perhaps one of the best examples and one  
8 we believe is going to be crucial in this case is  
9 another term that is referred to by the TVA as  
10 "ponding." Ponding in its simplest form is the creation  
11 of water through either rain, but most notably through  
12 pumping water behind the dikes. TVA's policies and  
13 procedures and their engineers say you can't have  
14 standing water build up behind the dredge cells. The  
15 dredge cells at the very top of the nine story coal ash  
16 facility, this pyramid, if you will, of coal ash, you  
17 can't have water ponds building up on top of that  
18 because they can't hold the weight. It causes mushy  
19 dikes. It is the source of seepage. It is the source  
20 of internal erosion and it is the source of the picture  
21 that Mr. Buttram took at the point of the failure in  
22 October of 2008, the sloughs. You have to do everything  
23 you can to move the water off of these things. That was  
24 not done.

25           As a matter of fact, in a photograph that

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1 was taken on October 20th, 2008, just two months before  
2 the catastrophe, this is the dike that failed under  
3 extreme water pressure, ponding, that TVA by its own  
4 rules and regulations is required to eliminate as soon  
5 as possible.

6 TVA created specifications to avoid  
7 surface water ponding. They knew the ponding undermined  
8 the dike stability and reduced the safety factor of the  
9 dikes to a dangerous level.

10 These soft mushy dikes were recorded. As  
11 a matter of fact, in a haunting photograph that was just  
12 days before the dike failure, a man out on the dikes  
13 wrote to the TVA in an e-mail that these are the  
14 "softest dikes I have ever been on." This man was a  
15 surveyor. This picture that he gave the TVA shows him  
16 sinking in the dikes almost to his waist. Soft mushy  
17 dikes take him down like quicksand. And this man is not  
18 even charged with responsibility for monitoring or  
19 looking at the stability or maintenance of the dikes  
20 asked the TVA, what is going on here? What are these  
21 things made of? They are soft. They are mushy. Can  
22 this possibly be right? It is not the first warning  
23 that TVA had.

24 TVA as a result of the blowouts that we  
25 have talked about in '03 and '06 systemwide, started

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1 back in 2003, we expect the evidence to show, what was  
2 referred to as an "Ash Blitz." That is a catchy phrase  
3 but what it really meant is we are going to get a group  
4 of engineers and inspectors together and go facility to  
5 facility to get a handle on these ash containment ponds.  
6 They came out to Kingston and they tried to sound the  
7 alarm and they set up some specific rules and gave some  
8 specific instructions. This is in 2004.

9 A recurring theme of a warning to TVA was  
10 watch for sloughing, watch for these situations where  
11 you have slides, whole parts of earth come out of your  
12 dikes. That's a dangerous sign. We believe the  
13 evidence will show, when the testimony is in, and  
14 evidence that sloughs are recognized by those familiar  
15 with earthen dams, that when you see them, a dike  
16 failure could follow in weeks and months in short order.  
17 Sloughs is not just a geotechnical term to be ignored.

18 The Ash Blitz also said you got lower  
19 dikes there at Kingston that are saturated. That means  
20 you are not draining the dikes properly. Water is  
21 coming out in places it shouldn't be. You have soft  
22 dikes. You have red water seepage. As a matter of  
23 fact, the Ash Blitz concluded of all the facilities in  
24 the TVA system, Kingston had the most problem with red  
25 water seeps, tainted water from spent coal ash coming

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1 out of the dikes where it shouldn't come out indicating  
2 instability and a lack of structure.

3 The problems cited in the Ash Blitz of  
4 2004 we are going to have evidence to show, testimony  
5 from TVA, that these items were not addressed.  
6 Necessary maintenance was not done. The same thing  
7 holds true for the annual inspections, these legacy  
8 problems we talked about earlier.

9 There was a problem with writing  
10 documentation down that pertained to maintenance  
11 problems that the inspectors who looked at this failure  
12 termed "siloeing." Siloeing is a group of people or a  
13 person within TVA reporting a problem and not sharing it  
14 with maintenance or others who are required to address  
15 it, as a result of TVA's policies and procedures.

16 An example of that, we expect the evidence  
17 to show that TVA was required to do annual seepage  
18 inspections, or actually quarterly seepage inspections.  
19 These reports were to be turned over to TDEC. They were  
20 required all through the nineties and certainly after  
21 the turn of century up until the time of the failure.  
22 This crucial seepage information in these reports were  
23 never provided to the engineers who were required to  
24 inspect the dikes who could reconcile the information  
25 and do something about it. Instead as the Office of the

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1 Inspector General found, this crucial information on  
2 maintenance issues was siloed and not distributed and  
3 not given to the people who needed it and who had a  
4 chance to do something about it.

5 Now, we have talked -- you see at the very  
6 end of the bullet points from the McKenna, Long report.  
7 They talk about silo responsibility and poor  
8 communication. The red water reports are a good  
9 example.

10 As a matter of fact, the evidence will  
11 show when these engineers were out there in October of  
12 2008 just before, just two months before the dike  
13 failed, that they didn't have this crucial information  
14 about the location of red water seeps. They were left  
15 on their own to find it, to find out the seeps in this  
16 84 acre containment area on their own in a short period  
17 of time.

18 McKenna, Long also reported to the Board  
19 of Directors at TVA that inspections just like we have  
20 talked about were nothing but form over substance,  
21 inconsistent oversight, lack of clarity, complete lack  
22 of standardization, training and metrics and the design  
23 of the dikes in the drawings for construction were not  
24 followed.

25 THE COURT: What was the date of this

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1 report?

2 MR. FRIEDMAN: The McKenna, Long report.  
3 The McKenna, Long report came after the failure. The  
4 Ash Blitz that there was a genesis of many of these  
5 findings came in 2004.

6 Your Honor, I want to change gears, if the  
7 Court will allow, and talk a little bit about what we  
8 expect the evidence to show concerning expert testimony.  
9 We believe expert testimony is going to be a crucial  
10 part of this case. The plaintiffs will offer expert  
11 testimony in the person of Mr. Brown and Dr. Marks.  
12 We'll talk about what we expect their evidence to be in  
13 just a minute.

14 If I can briefly digress to say that the  
15 plaintiff's two experts will be countered by a defense  
16 expert by the name of Mr. William Walton or Bill Walton  
17 -- not to be confused with the basketball player and now  
18 the sports announcer.

19 Mr. Walton, his introduction to this case  
20 is important. We believe the evidence on that is going  
21 to be crucial in taking that into account.

22 The evidence in the case, we'll call the  
23 President and CEO, Tom Kilgore, to establish this is,  
24 that he made a promise to Congress and the Senate  
25 following this disaster that TVA would get to the bottom

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1 of this. They would find out what the actual cause was,  
2 what rules were violated, who was responsible for the  
3 disaster, and, if necessary, heads would roll.

4 Now, we believe the evidence will also  
5 show that not one person within TVA has been ever, has  
6 been held accountable for this disaster. There's a  
7 reason for that. Because after Mr. Kilgore made his  
8 promise to the Senate and the Congress the ratepayers of  
9 TVA and the taxpayers of the United States of America he  
10 turned the task over to his lawyers.

11 What the lawyers did is to follow a  
12 litigation strategy. They hired Mr. William Walton and  
13 they hired Mr. Walton under very very strict conditions.  
14 This is what they told him. Do whatever you need to do.  
15 You have got unlimited budget. Test whatever you need  
16 to test, but do not under any circumstances blame any  
17 individual at TVA, don't make any criticism of TVA,  
18 don't make any finding of fault against the TVA, and  
19 strictly find a mode of failure that doesn't have  
20 anything to do with assigning fault against the TVA.

21 You know what he did. He did just what  
22 they told them. He charged them \$3.2 million and  
23 continued with additional contracts now approaching  
24 possibly \$4 million. What he did was just what he  
25 promised he would do in his prospectus or just what he



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1 promised he would do to TVA when he got started. In his  
2 proposal he said I will come up with a mechanism of  
3 failure that he calls a slimes layer. This slimes  
4 lawyer is a magical layer that caused the dikes, these  
5 massive structures, to slide and allow 1.2 billion  
6 gallons of sludge to escape, rupture and liquify.

7 What has the Office of General Counsel  
8 said about that? Well, they said it's a litigation  
9 strategy. It says that it was done as a resulted of the  
10 tightly circumscribed requirements. It was a conscious  
11 decision to present the public with only one of the  
12 facts that supported an absence of liability, not one of  
13 the facts, but only facts that supported an absence of  
14 liability for TVA.

15 Just like Mr. Walton said in his  
16 deposition, he reached a predetermined result and as a  
17 result the Office of Inspector General of the Tennessee  
18 Valley Authority classified his work as suspect.

19 The TVA has instead of going out and  
20 getting another expert, they have continued to stick  
21 with him. He is the person we believe they will call at  
22 trial to support their defense.

23 On the other hand, we have two expert  
24 witnesses we are very proud to present; Mr. Gary Brown.  
25 Mr. Brown is going to testify because, Your Honor, the

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1 Kingston Coal Ash Facility is permitted and documented  
2 as a landfill. Mr. Brown is an expert on solid waste,  
3 hazardous waste, landfill design, construction and  
4 operation and most importantly regulation. He has had  
5 30 years of environmental engineering experience and he  
6 has dealt with landfill and containment issues all over  
7 the eastern United States.

8 His testimony we believe is going to be  
9 that TVA committed numerous violations of its own rules,  
10 of its permits and its regulations which were  
11 substantial factors in the failure of the dredge cells  
12 and the disaster of December 22nd, 2008.

13 Secondly, Your Honor, the plaintiffs are  
14 very proud to present the testimony of Dr. Dan Marks, a  
15 geotechnical engineer with 40 years of experience and  
16 training. He has been a professor of civil engineering  
17 at the University of Tennessee College of Engineering  
18 for ten years. He has served as a geotechnical  
19 consultant over 30 years. He was been a consultant to  
20 the foundation of the largest building in Knoxville and  
21 Nashville and parts north and south of here.

22 We believe he is going to testify that the  
23 dredge cells were overloaded with excessive water and  
24 high loads leading up to the disaster. He is going to  
25 testify that the TVA's improper maintenance, inadequate

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1 construction, lack of proper operation, inspection and  
2 maintenance caused and was a substantial factor in the  
3 failure of the Kingston facility.

4 Your Honor, I promised I would be through  
5 in close to an hour. I am seeing my colleagues trying  
6 to get my attention out of my peripheral vision. With  
7 that, I will try my best to wrap up. We have a few, I  
8 have a few other comments that I believe I would be  
9 remiss if I did not address.

10 With the Court's indulgence, we want to  
11 comment just briefly on what we expect the evidence to  
12 be from TVA. After all, this is a case made with TVA's  
13 witnesses to discuss and get to the cause of the dike  
14 failure out there that we believe was caused by TVA.

15 First, throughout this entire case TVA has  
16 denied any liability. The only thing they have admitted  
17 is that this slimes layer which was the predetermined  
18 creation of Mr. Walton was the cause. They denied that  
19 they made any bad choices, any bad decisions, that they  
20 disregarded any warnings. They have denied maintenance  
21 issues, construction issues, training issues, denied  
22 failing to follow policies and procedures. They have  
23 denied everything.

24 Then we have engaged in the most extensive  
25 motion practice that I in my 30 years have ever seen.

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1 We have gone through three summary judgments. With Your  
2 Honor's guidance you have told us how this case should  
3 be tried and we are committed to following that.

4 What we expect the evidence to show  
5 concerning TVA now, Your Honor, is that on the eve of  
6 trial, the eve of trial in no more than a footnote in  
7 the TVA's proposed findings of fact the first time, the  
8 TVA as said, all right as the mountains of evidence  
9 against us has collected and as the testimony has  
10 increased, as the pressure increases, you know, after  
11 Your Honor has issued an order saying that they are  
12 immune for discretionary conduct they have stepped up to  
13 the bar and for the first time admitted and they do not  
14 contest the causes of the spill are a result of TVA's  
15 bad decision making and bad policies for all these  
16 years. The first public admission of that wrongdoing.

17 We do not believe that this strategy will  
18 work and this evidence will carry the day. Here is why.  
19 Instead of being able to try to blame poor decisions and  
20 poor policies that were created in the sixties and  
21 seventies we believe those same policies were not bad  
22 decisions, but they were warnings. They were  
23 information, part of the tribal knowledge to TVA of you  
24 have got problems with your dikes. As a matter of fact,  
25 the evidence is going to show that the John Sevier

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1 Electric Facility in the 1970s the dike failed, it came  
2 crashing down. TVA had knowledge of that. They had  
3 knowledge that you have to build these right, have to  
4 maintain them right and you have got to monitor them.

5 We believe the efforts to blame poor  
6 decision making on people who are no longer here will  
7 fail.

8 Now, in closing, the plaintiffs will work  
9 diligently to move the case along, as Your Honor  
10 expects, and to cooperate and do everything humanly  
11 possible we can. We, as the Court has recognized, we  
12 have a tremendous obligation to our clients, the  
13 families out there in Kingston. We intend to carry our  
14 burden and meet our responsibilities, Your Honor.

15 We know that based on what Your Honor has  
16 said and the findings of this Court all the plaintiffs  
17 have to do is prove that one element, just one element  
18 of nondiscretionary conduct being a substantial factor  
19 in the coal ash disaster is sufficient to carry our  
20 burden. We believe we will put on substantial evidence  
21 of not just one element but all four elements that each  
22 one of these standing alone created a substantial  
23 contributing factor to the disaster.

24 That is why at the close of the evidence  
25 we are going to ask for a plaintiff's verdict because of

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1 the TVA's negligent failure to inform and train its  
2 personnel. Because of the TVA's negligent and  
3 inadequate performance of its policies and procedures,  
4 because of the negligence in construction in following  
5 the design parameters for the dikes and because of the  
6 negligent maintenance that followed.

7 That is also why at the close of the  
8 evidence, Your Honor, we will ask the Court for  
9 permission to stand here before Your Honor at the end of  
10 the evidence and to request a verdict on behalf of the  
11 plaintiffs.

12 Thank you.

13 THE COURT: Thank you, Mr. Friedman.

14 Mr. Small, opening statement on behalf of  
15 defendant, TVA.

16 MR. SMALL: I am Edwin Small of the  
17 Knoxville bar. I am here representing, of course, the  
18 Tennessee Valley Authority. I have someone in the  
19 courtroom I would like to take a moment to introduce the  
20 Court to, someone the Court has not previously met, is  
21 TVA Senior Vice President Bob Deacy. He, among other  
22 things, is from our Fossil Organization and responsible  
23 for the Kingston cleanup work. He is with us today as  
24 the agency representative.

25 THE COURT: Good morning.

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1                   MR. SMALL: It goes without saying that  
2 the presentation that Mr. Friedman just made we did not  
3 have access to it until we just saw it with the Court.  
4 There are a number of things in it that we will object  
5 to, and, of course, it is not into evidence yet, those  
6 various matter he referred to. That same thing applies  
7 to the exhibits I will use in my opening statement.  
8 They will be only three, Your Honor.

9                   This case, as I think about it, is more  
10 like an airplane crash than anything else I can think  
11 of. Why do I say that? This case is sort of like an  
12 airplane crash where an airplane is flying along and  
13 there are some internal cracks in the wings that you  
14 can't see right at the root of the wings. Those  
15 internal cracks cause that airplane to fall out of the  
16 sky because the wings fall off.

17                  Now, before that plane took off that day  
18 the pilots did their normal walk-around inspection and  
19 there were a number of things that you could see about  
20 that airplane that were later criticized in the press  
21 and by various people; the paint was faded, the exterior  
22 was dirty, the cabin was not vacuumed, the tires were  
23 worn, but the problem with all that, Your Honor, is that  
24 those things didn't cause that crash. That crash was  
25 caused by the internal cracks in the wings.

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1                   As to that matter, the airline had sent it  
2 back to the manufacture and sent it back to Boeing the  
3 month before and said we want you to x-ray the wings and  
4 make sure that they are good for another hundred  
5 thousand hours. Boeing x-rayed the wings and told the  
6 airline, yes, the wings look good. They are good for  
7 another hundred thousand hours.

8                   Now, why is that like this case, Your  
9 Honor? That is like this case because in 2004 TVA  
10 instead of sitting in a silo, as some would suggest,  
11 went to an outside contractor, Parsons, known in this  
12 case as Worley Parsons, went to Parsons and said we have  
13 had a problem on the west dike with a blowout and we are  
14 trying to figure out what to do. We want you to take a  
15 look at these facilities -- and I am talking about these  
16 facilities in Kingston, not ash facilities at other  
17 plants. We want you to look at these facilities at  
18 Kingston and tell us whether or not we can continue  
19 building them up.

20                   So this outside contractor came in and  
21 looked and TVA told them -- of course, we quoted from  
22 them at our proposed findings and conclusions. I think  
23 the memorandums will come in as evidence in the case.

24                   The assignment of Parsons was, based on  
25 this analysis it will be determined whether the dredge



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1 cells can continue to be utilized, as presently  
2 constructed, or whether modifications will be required  
3 to allow the dredge cells to continue to be operated  
4 beyond its existing height.

5 Parsons looked at everything, Your Honor.  
6 Parsons looked at the fact that the Kingston ash  
7 facilities were put in this shallow area of Watts Bar  
8 Reservoir. Parsons looked at the whole history of the  
9 facilities. They looked at the Singleton studies  
10 mentioned by Mr. Friedman. They had their own  
11 subsurface borings done in 2004.

12 They evaluated the entire facility, the  
13 dredge cell facility in particular, and what did they  
14 say? At that point in time the dredge cell facility was  
15 at elevation 810. As you hear us talk about elevations,  
16 Your Honor, we are, of course, referring to topographic  
17 elevations that come off a lot of engineering drawings.  
18 Topographic maps generally refers to elevation above sea  
19 level.

20 The dredge cells were at elevation 810.  
21 What did Parsons say? Parsons said, well, we have  
22 looked at it. We have looked at the entire history. We  
23 have gone down and looked at the subsurface. We think  
24 that you can continue building it up to elevation 868.  
25 You can continue building up the dredge cells another 58

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1 feet. We think that they are "likely to be stable  
2 during any phase of construction and after completion of  
3 construction, including during the occurrence of a  
4 design seismic event."

5 Your Honor, an outside contractor came in,  
6 took a look at the entire history of the facility, took  
7 a look at the current maintenance of the facility at  
8 elevation 810 and said you're good. Keep on building up  
9 to elevation 868. And what happened? Ten feet later at  
10 elevation 820, the structure failed.

11 The structure failed, as Mr. Friedman  
12 said, because the load was too much for the foundation.  
13 In hindsight you can look at it and say, well, yes, that  
14 is obvious, and it is.

15 TVA didn't admit that for the first time  
16 in Footnote 3 of its proposed findings and conclusions.  
17 TVA has not contested that since the summer of 2009 when  
18 the AECOM report came out and said that same thing.  
19 That the buildup was too much for the foundation  
20 conditions and it failed.

21 One question that was raised near the end  
22 of Mr. Friedman's opening, and I think the evidence will  
23 show this very clearly, is TVA retained AECOM to  
24 determine what happened, not why. There is a big  
25 difference between "what," especially in a geotechnical

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1 situation like this, and "why" which involves a lot of  
2 finger pointing and fault and can we find somebody to  
3 blame.

4 What happened is important because until  
5 you determine what happened, Your Honor, you can't even  
6 begin hardly with why.

7 Back to my airplane example. As we all  
8 know from common experience, when there is an airplane  
9 crash the first thing people do is they start  
10 speculating about the cause and people speculate about  
11 things that didn't have anything to do with it and it  
12 will get press coverage and it will get widespread  
13 attention, maybe that the plane took off even though the  
14 weather forecast was bad, maybe the plane took off even  
15 though the tires were worn, various things. Until the  
16 National Transportation Safety Board determines maybe a  
17 year later that the cause of the crash was the internal  
18 wing cracks, all that speculation amounts to nothing.

19 Later on after the year's past and the  
20 true cause comes out you are way down the pike and all  
21 those stories about, gosh, the airline engaged in bad  
22 maintenance in a number of ways no one remembers that  
23 none of those things caused this accident, and that is  
24 what this case more than anything is about today.

25 Now, in a geotechnical situation, or any

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1 technical situation, the question of what's important --  
2 when Mr. Walton testifies I believe you will hear him  
3 testify he is often called in to determine what happened  
4 in a geotechnical forensic type investigation and he is  
5 called in to make that determination, Your Honor, not to  
6 testify in litigation.

7 Your Honor will hear Mr. Walton has never  
8 ever testified in court before, either state or Federal  
9 Court. He has testified in a few, very few,  
10 arbitrations, but his court business is geotechnical  
11 engineering. When he is called in to do a forensic  
12 analysis or analysis of what happened, it's done so that  
13 they can figure out what needs to be done to save a very  
14 expensive project.

15 The key point is what happened, because  
16 until they figure out what happened, they cannot fix the  
17 foundations and enable the project to go forward.  
18 That's what he is doing here, Your Honor, coming in to  
19 figure out what happened. Once you figure out what  
20 happened, then you can assess the whys.

21 TVA is proud of what it did in the scope  
22 of the investigation. It's the right way to do it. You  
23 will hear the evidence about what versus why and the  
24 reasons for that.

25 One thing I want to call the Court's

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1 attention to are the two large aerial photographs we  
2 have put up. One shows the facilities before the  
3 failure, the one on the left. The one on the right  
4 shows the facilities after the failure, shows the ash  
5 spill and basically to the north.

6 I want to caution the Court that as we go  
7 through the evidence you will hear people say various  
8 things about locations. You will hear people say  
9 various things about directions. It is going to be  
10 confusing because you can see that the facility -- as  
11 you can see from the facility here, the ash pond itself  
12 is canted. It is not directly north south. So some  
13 people call that dike there the north dike, some people  
14 call it the east dike. It's actually oriented, I  
15 suppose, so it is northeast. In general in this case we  
16 are going to refer to it as the north dike.

17 Most of the forensic documents involving  
18 what happened refer to it as at north dike. However,  
19 some pre-failure documents refer to it as the east dike  
20 because of the way the facilities are canted.

21 If we don't make that clear during the  
22 reception of evidence, Your Honor, we would welcome  
23 interruption to make it clear. I don't want there to be  
24 any confusion about what dike a witness is talking  
25 about.

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1           The dike over on the Swan Pond Road side I  
2 just highlighted with an arrow, we'll refer to it as the  
3 west dike or Swan Pond Road dike. It's the dike  
4 Mr. Friedman made a reference to we had two blowouts,  
5 one in '03 and one in '06. To my knowledge there is no  
6 allegation from the experts that had anything to do with  
7 the December, 2008, failure over on the north dike.

8           The other thing I would call the Court's  
9 attention to is that on the north side -- before I go to  
10 that let me say one other thing. Your Honor, down here  
11 where I am currently showing my fingernail, there is a  
12 dike that you would think we would call the south dike.  
13 There is actually materials in the record that call that  
14 the north dike. That is because at one time, as this  
15 facility developed over the years, that was the north  
16 dike. Again, please, we welcome any clarification from  
17 the Court, as a witness is talking, about which specific  
18 dike because it is going to get confusing at times.

19           Let's talk about the north dike just a  
20 minute. This schematic comes from the AECOM report. I  
21 am putting it up right now just as a general orientation  
22 matter to just alert the Court to what we think the  
23 evidence will show.

24           This is the north dike. This is looking  
25 west. Now, when I say it's the north dike, I suppose I

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1 really should say it is the north dikes. What you have  
2 here is you have Swan Pond slew over on the right-hand  
3 side, and, of course, just north of that you have got,  
4 you have a road.

5 Coming from the slew the next thing you  
6 run into is Dike C. Now, we call that Dike C, we call  
7 it the northern most perimeter dike. The concept is on  
8 the drawing that we showed there earlier there's a dike  
9 that's out there that is the very northern most dike.  
10 It's a lower level dike. It is called Dike C. As you  
11 can see, it is really built in three stages.

12 Stages are sometimes labeled A, B, C, D.  
13 Sometimes some of the evidence may come in and be  
14 confusing because it's not Dike C, it's Stage C that is  
15 being referred to. Again, anytime there is confusion,  
16 we welcome a question.

17 Dike C, as you can see, has a level area  
18 about 200 feet wide before the dikes start up again.  
19 You can see there is a, they are labeled A, B, C, C1,  
20 C2, C3, D1, D2. That is about what it looked like at  
21 the time of failure with the D2 dike being an  
22 approximate elevation 820.

23 Now, these stages here refer to upstream  
24 construction. It's another term the Court will hear.  
25 What that refers to is the dike isn't built like -- and

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1 I suppose when you start off on something like this you  
2 think, gosh, the thing is built and then you put the  
3 whatever you are storing behind it like a traditional  
4 dam. That's not true here. What happens here is the  
5 structure itself, the dike itself is built up in stages  
6 and here those stages are labeled letters. As the ash  
7 that's inside it is loaded higher and higher, it's an  
8 ongoing construction process.

9 Now, the white material, of course,  
10 represents the ash fill that was inside there. You can  
11 see up at the top there is a blue indication near the  
12 Cell 2 level indicating some water at the top of the  
13 cell.

14 The important thing about that, Your  
15 Honor, is the evidence will show, one, that 1985  
16 memorandum that discussed Dike C out there and the fact  
17 that there was some issues with Dike C was taken into  
18 account and because of that about a decade later when  
19 they actually designed what we might call the interior  
20 dike or upper dike on the north side, that's the yellow  
21 here, it was offset or inset 200 feet in order to not to  
22 put additional load on Dike C.

23 The evidence will show the issues  
24 identified in the mid eighties with Dike C were taken  
25 into account, as opposed to not.



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1                   Another thing, Your Honor, when this  
2 interior dike was actually designed in the mid nineties  
3 design drawings called for specific slopes and so forth.  
4 The evidence will show that those drawings from the mid  
5 nineties, those design drawings were closely conformed  
6 to. How will that be shown? That will be shown because  
7 TVA went out and did as-built surveys. When you overlay  
8 the as-built surveys on top of the mid ninety design  
9 drawings, you will see that the construction was as  
10 designed, not the other way around.

11                   TVA does manage, the evidence will show,  
12 the water in the dredge cell. Up there in the schematic  
13 that I show right now you can see there's a little bit  
14 of blue at the very edge of the Cell 2 area. That's  
15 also known was a rim ditch. There was a photograph  
16 Mr. Friedman put up that he indicated had been taken on  
17 October 20, 2008, just 60 days before the failure. He  
18 said it showed a lot of water in the dredge cell.

19                   It looked like there was a large canal, if  
20 you will, flowing around the outer perimeter of the  
21 dredge cell. There was. That term for that is rim  
22 ditch and the operation of the dredge cell is such that  
23 the dredging is put in at towards the south end of the  
24 dredge cell, that rim ditch is maintained around the  
25 parameter of the dredge cell to cause water to flow to

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1 the spillway gate where the water is decanted out of the  
2 dredge cell. That is done in a very purposeful manner  
3 in accordance with TVA's normal operations, Your Honor.  
4 You will see that picture later and the whole rim ditch  
5 decanting process will be explained.

6 The softest dikes photograph that  
7 Mr. Friedman showed you is something else you will see  
8 in the evidence. There's no question but what that  
9 happened. It didn't happen anywhere close to the dike  
10 that failed.

11 If you look back at the original  
12 pre-failure geometry of the dike facilities, you recall  
13 what I call the north dike is where the failure point  
14 occurred. They were building new dikes in this general  
15 area here and in that general area there as part of that  
16 new dike construction they encountered some soft areas  
17 in connection with brand new construction. No one  
18 asserts that had anything to do with the December, 2008,  
19 dike failure. As a matter of fact, that incident did  
20 occur.

21 The Ash Blitz of 2004 was something else  
22 that you will hear about in the evidence. Instead of  
23 showing that TVA didn't care about the dikes, it shows  
24 just the opposite. It shows that TVA did care about the  
25 dikes. TVA witness Steve Ball will testify the Blitz

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1 occurred. It occurred at not only Kingston but other  
2 ash facilities all over the TVA system. They wanted to  
3 make sure that the ash facilities were being properly  
4 maintained. They identified various things at various  
5 facilities that needed work. The things that needed  
6 work at Kingston and those other facilities were  
7 followed up on. Mr. Ball will testify to that and I  
8 think satisfy any concerns the Court may have.

9 Red water seepage. The word seepage may  
10 be a misnomer here. What do I mean by that? You are  
11 going to hear a lot of people use the word seepage.  
12 Seepage means different things to different people.

13 These dikes have drains. Some people call  
14 them French drains, some people call them underdrains,  
15 some people call them heel drains. They are called lots  
16 of things. The basic principle is that there is black  
17 plastic pipe, not much different than the Court may know  
18 about from gutter downspouts or a French drain around  
19 your home. This black plastic pipe, as it goes around  
20 the dredge cells inside the dikes themselves is slotted,  
21 it takes in water. Water that enters the dredge --  
22 excuse me, water that enters the dike, goes into the  
23 plastic pipe and then every so often there is another  
24 pipe that takes off from that ring of slotted pipe and  
25 goes to the outer surface of the dike. On the outer

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1 surface of the dike there are going to be various places  
2 where you see water, wet spots. The reason you see that  
3 water, those wet spots is because the drain system that  
4 is designed and constructed as part of this dike system  
5 brings water to the surface and that is how it does it.

6 When it brings this water to the surface  
7 because the water has a high iron content, it turns red.  
8 That is about all I know about all we plan to present  
9 evidence wise on that, Your Honor. As to the technical  
10 aspects of why it turns red, it has to do with chemical  
11 reaction, exposure to oxygen and so forth. The point is  
12 that a red water seep is a matter of concern for  
13 environmental purposes because of the color the water  
14 and the chemical reaction that is taking place. The  
15 word "red water seep" may be referring not to a seep of  
16 water through the dike, but rather to water that is  
17 coming through the drain system and once it is exposed  
18 to oxygen on the surface turns red and so you will see  
19 what is referred to as a red water seep. It may or may  
20 not be an actual seep through the dike. It may in fact  
21 be a drain outlet.

22 We expect the Inspector General to testify  
23 here, Your Honor, and when he testifies we expect that  
24 he will testify that Mr. Walton, the engineer who did  
25 the AECOM report, was a person determined by them to be

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1 a professional not susceptible to any undue influence  
2 and that he will also testify to that, nor did he find  
3 any evidence of any effort by TVA management to  
4 influence Mr. Walton's work.

5 Contrary to the implication of  
6 Mr. Friedman's opening, Your Honor, we think the  
7 evidence will show that TVA hired Mr. Walton, a literal  
8 world renowned professional in this geotechnical area to  
9 come here to East Tennessee and determine what happened  
10 in order to go from there to make determinations about  
11 why it happened to the extent you need to go further,  
12 and, more importantly, to determine whether or not this  
13 facility, this spot can be used to store ash that's  
14 being recovered from the river and the slews where it  
15 went.

16 It is important to know what happened  
17 because if we are going to put that ash back where it  
18 came from, we need to know that it is going to be okay.  
19 Until we know what happened, you can't do the  
20 engineering to make that okay. That is what a classic  
21 geotechnical engineer does when called in to look at a  
22 disaster and try to figure out what happened. That is  
23 what happened here. Mr. Walton's work is being used for  
24 that very purpose, Your Honor. It is not some  
25 litigation only.

1                   Your Honor, that is all I have.

2                   THE COURT: All right. Thank you. Since  
3 we got started a little bit later, in lieu of a morning  
4 break, if plaintiffs are ready to proceed, why don't  
5 plaintiffs call their first witness. We'll go about an  
6 hour and take a normal lunch break.

7                   Before you announce your first witness be  
8 mindful this is a bench trial. If people in the  
9 audience or counsel or the parties need to quietly slip  
10 out, go ahead and do so during while the trial evidence  
11 is being presented.

12                  MR. FRIEDMAN: Plaintiffs would call Chris  
13 Buttram.

14                  CHRISTOPHER BUTTRAM  
15 was first duly sworn and testified as follows:

16                  COURTROOM DEPUTY: Please state and spell  
17 your name for the record.

18                  THE WITNESS: Chris Buttram, C-h-r-i-s  
19 B-u-t-t-r-a-m.

20                  MR. FRIEDMAN: As a housekeeping matter,  
21 we would like the record to reflect we are calling  
22 Mr. Buttram as an adverse witness under Rule 608.

23                  THE COURT: You may proceed.

24                  **DIRECT EXAMINATION**

25 BY MR. FRIEDMAN:

1 Q. Hello, Mr. Buttram.

2 A. Hello.

3 Q. Can you please state your name for the record.

4 A. My name is Chris Buttram.

5 Q. Now, tell us what your job title was in 2008,  
6 October of 2008 for TVA.

7 A. In October of 2008 my job title at that time  
8 was a Senior Civil Engineer in the Fossil Power  
9 Engineering Group.

10 Q. And let's by way of background let's talk just  
11 a little bit about your education and your background.  
12 If you would just walk us through your educational  
13 background, please, Mr. Buttram.

14 A. Yes, sir, I graduated from Tennessee Tech in  
15 December of '99 with a BS in civil engineering. After I  
16 graduated from Tennessee Tech I began working at Mesa  
17 Associates which is a consulting engineering firm. My  
18 roles there were developing and designing grading plans,  
19 site plans, layout plans, erosion plans for substation  
20 or substation expansions. I did some structural  
21 engineering work and foundation design.

22 I worked at Mesa until August of 2005 and then  
23 I went to Thompson Engineering. I worked at Thompson  
24 Engineering approximately two years. Thompson  
25 Engineering was another consulting engineering firm.

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1 They did a lot of construction and engineering and  
2 inspection. I just was an associate engineer there,  
3 kind of watching what the inspectors did and everything.

4 In that time between Mesa and Thompson I  
5 acquired my Professional Engineering License in 2004. I  
6 also acquired my MBA at the University of Tennessee,  
7 Chattanooga.

8 After leaving Thompson Engineering I went and  
9 worked for Stantec which is also Neill & Gunter. I  
10 worked there for about a year and then joined TVA in the  
11 year of 2008, approximately June of 2008.

12 Q. Mr. Buttram, you went to work for the TVA in  
13 the summer of 2008, is that right?

14 A. Yes, sir, that's correct.

15 Q. You remember what month you started?

16 A. It was toward the end of June.

17 Q. Now, in October of 2008 you did some work in  
18 Kingston, didn't you?

19 A. Yes, sir. That was the time of my inspection.

20 Q. And I believe you performed or you  
21 participated in performing a stability inspection there?

22 A. It was a visual inspection.

23 Q. Did you participate in performing at Annual  
24 Ash Pond Dike Stability Inspection of the Kingston  
25 facility in 2008?



1           A.    That was the title given to the inspection.  
2   The inspection was actually a visual inspection of  
3   observing the features out there.  No stability analysis  
4   was done for this type of inspection.

5           Q.    We can agree that although the document you  
6   did was entitled the Annual Ash Pond Dike Stability  
7   Inspection, you didn't do a true stability inspection  
8   did you?

9           A.    That's correct, sir.

10          Q.    Now, did you see before you went out there to  
11   do your stability inspection any TVA rules or  
12   regulations?

13          A.    I was not given any rules or regulations on  
14   these inspections.  It was a considered to have an  
15   on-the-job type training for the inspection.

16          Q.    All right.  We'll get into that in just a  
17   minute.  I am just talking about rules and regulations.  
18   I want to show you, if I may, I would like to present  
19   the witness with Plaintiff's Trial Exhibit 538 entitled  
20   TVA Division of Engineering Design, Engineering  
21   Procedure.  Do you have that in front of you?

22                   (Exhibit No. D-538 was marked for  
23                   identification.)

24          A.    Yes, sir, I do.

25          Q.    Have you ever seen the document that is in

1 front of you before?

2 A. I had not seen this document at the time of  
3 the inspection. Since then I have come to see it.

4 Q. All right. Let's cover a couple of things.  
5 The inspection took place in October of 2008, right?

6 A. Yes, sir.

7 Q. And you hadn't seen Exhibit 538 at that time,  
8 right?

9 A. I had not seen this document at that time.

10 Q. You wrote your inspection up I believe  
11 sometime after that after the coal ash disaster occurred  
12 on December 22nd, 2008. At some point after that you  
13 wrote your stability report up, right?

14 A. Yes, sir.

15 Q. And at that time you wrote your stability  
16 report up, had you seen Exhibit 538?

17 A. I had not seen this document at the time I  
18 wrote the report.

19 Q. Now, you remember you have actually given two  
20 depositions in this case. As a matter of fact, that's  
21 where I first met you and reacquainted myself during the  
22 course of your depositions. At those times had you seen  
23 this engineering procedure?

24 A. I do not recall having seen these at that  
25 time.

1           Q.    I believe your testimony, if I got it right,  
2           was that you heard a reference to them, but you had  
3           never seen them, these procedures?

4           A.    Yes, sir, that would be my recollection.

5           Q.    If you would, can you tell the Court when was  
6           the first time you saw these engineering procedures.

7           A.    The first time that I would have seen these  
8           procedures would have been I guess a couple of weeks  
9           ago.

10          Q.    And I don't want to get into any  
11          attorney/client privilege matters. Was that in your  
12          preparation to be here in court today?

13          A.    Yes, sir, that was in preparation.

14          Q.    If you would, turn to the third page of the  
15          document, please, sir. Are you there with me?

16          A.    Yes, sir, I am there.

17          Q.    Paragraph 1.0, Purpose and Scope. This it  
18          says "EP." What does EP mean?

19          A.    I believe that stands for engineering  
20          procedure.

21          Q.    It describes "responsibilities of EN DES."  
22          What does that mean?

23          A.    To my knowledge that would be Engineering  
24          Design.

25          Q.    "Division of Power Production. For the

1 inspection and maintenance of ash disposal areas and  
2 coal fired power plants." Did I read that right? We  
3 all know that Kingston is a coal fired power plant,  
4 right?

5 A. Yes, sir.

6 Q. Do these procedures since they have come to  
7 your attention now, do you know whether or not they  
8 would have applied to your inspection that you conducted  
9 in October?

10 MR. MARQUAND: Object to speculation, Your  
11 Honor.

12 MR. FRIEDMAN: I haven't even got the  
13 question out. Let me see if I can rephrase that.

14 THE COURT: Thank you.

15 BY MR. FRIEDMAN:

16 Q. Do you know, Mr. Buttram, whether or not these  
17 policies and procedures applied to your inspection that  
18 you performed at Kingston in 2008?

19 A. After learning about this and reviewing it it  
20 looks as if we had been following fairly close to what  
21 these inspections apply.

22 Q. Listen to my question, Mr. Buttram. Do you  
23 know if they applied? Did you even know if they applied  
24 at the time you did the inspection?

25 A. At the time -- as I have stated, at the time

1 of the inspection I didn't know of these, of this  
2 document. No, I wouldn't have known that it applied.

3 Q. Right. Sitting here today do you know or do  
4 you have or have you heard that these policies would  
5 have applied back then, had you known about it?

6 MR. MARQUAND: Object to hearsay.

7 THE COURT: That is probably a valid  
8 objection to part of your question. I will sustain the  
9 objection.

10 BY MR. FRIEDMAN:

11 Q. Do you know whether this policy applied based  
12 on your personal knowledge, on what you have learned?

13 A. I'm just trying to understand your question.

14 Q. Sitting here today, as you sit here today,  
15 have you learned that these are the policies that  
16 applied to the annual inspections?

17 A. No, sir, I do not believe that I knew that  
18 these applied to the annual inspections at that time.

19 Q. You didn't know at that time. Do you know  
20 that now, that they applied?

21 A. No, sir, these do not at this time apply to  
22 our annual inspections.

23 Q. So your annual inspection procedures have  
24 changed since December of 2008, is that what you are  
25 telling me?

1           A.    Yes, since 2008 our procedures have changed.  
2   We have developed -- not knowing of these procedures, we  
3   have developed new ones to follow.

4           Q.    Following the disaster you all developed new  
5   procedures, right?  Is that what you are telling me?

6           A.    Yes, sir.

7           Q.    Okay.  As far as the old procedures, this  
8   exhibit you have in your hand, 538, do you know that  
9   this, I know you didn't know about it at the time.  Have  
10   you since learned these were the procedures that were in  
11   effect at the time of your inspection in October of  
12   2008?

13          A.    No, sir, I didn't know, I can't say that I  
14   know these were in effect at that time.

15          Q.    Go to paragraph 6.0.  Would you read that into  
16   the record, please.

17          A.    "Inspections by P production plant operating  
18   personnel.  Since visits by EN DES representatives are  
19   necessarily infrequent, reliance is placed on plant  
20   operating personnel who regularly work around the ash  
21   disposal areas to call attention to abnormal conditions.  
22   Regularly scheduled inspections will be made by plant  
23   operating personnel, as outlined in Section 8.0.  Any  
24   abnormal conditions will be reported to EN DES  
25   immediately."

1           Q.    If you back up to 3.0 or 4.0, "scheduling  
2   inspections. To coordinate the annual joint inspections  
3   EN DES and P PRO will exchange proposed inspection  
4   schedule around the first of August each year, with  
5   revised schedule to follow." Did I read that correctly?

6           A.    Yes, sir.

7           Q.    Did you ever, in looking back turn the page --  
8   you see detailed instructions on pages 2, 3, 4, 5, and  
9   6. Had anyone ever gone over, I know you had never seen  
10   these procedures, but had anyone ever gone over before  
11   your inspection in substance the procedures that are  
12   outlined in Exhibit 538 with you?

13          A.    No, sir. This exact procedure wasn't given in  
14   detail, but on the write-up there before it was  
15   discussed the procedure we would follow.

16          Q.    Let's talk about the procedure that you  
17   followed there. The inspection in October of 2008 was  
18   your very first one?

19          A.    Yes, sir.

20          Q.    You had never had any similar inspections  
21   before that one?

22          A.    No, sir, no similar inspections for these type  
23   of facilities, yes.

24          Q.    You had never had any prior knowledge of any  
25   type concerning ways to go about doing the inspection,

1 right?

2 A. I had my background knowledge in engineering.  
3 I had several training courses in erosion. I knew how  
4 to inspect or to look for erosion type things. I didn't  
5 have any prior knowledge of this facility or how TVA in  
6 general did their inspection.

7 Q. You didn't have any discussion with anyone at  
8 TVA on how the inspection would be done, did you?

9 A. Well, I rode up with Jamey Dotson. We  
10 discussed how the inspection would go. When we met with  
11 John Albright before we started the inspection, we  
12 talked about what we would do and how we would handle  
13 the inspection.

14 Q. Did they ever give you any criteria or  
15 standards about how the inspection would be conducted?

16 A. No written standards.

17 Q. Did they ever explain any rules or regulations  
18 that applied?

19 A. They didn't mention any written rules or any  
20 regulations.

21 Q. At the time you went up there, did you know  
22 what an ash pond was?

23 A. I had heard of them. I didn't know, I hadn't  
24 ever seen one. I couldn't place a picture with what I  
25 heard about them.



1           Q.    The day before did you know what you were  
2 going to be doing?

3           A.    No, sir, the day before I didn't know exactly  
4 what would be completely done on the inspection.

5           Q.    Is it your testimony that you rode up from  
6 Chattanooga on the morning of the inspection with one of  
7 the people who accompanied you on the inspection?

8           A.    I rode up from Chattanooga on the morning of  
9 the inspection.

10          Q.    With who?

11          A.    Jamey Dotson, and met John Albright at the  
12 plant.

13          Q.    Didn't you tell us that you met Mr. Dotson at  
14 Kingston?

15          A.    No, sir. I do not believe I did. I met  
16 Mr. Albright.

17          Q.    All right. Okay. Did Mr. Dotson come in his  
18 own car and leave ahead of you?

19          A.    Mr. Dotson did leave the inspection after we  
20 inspected the dredge cells and ash disposal facilities,  
21 Mr. Dotson went on to do some of his other work. I rode  
22 back with Mr. Albright.

23          Q.    You caught another ride back?

24          A.    Yes, sir.

25          Q.    That's what I misunderstood. So you rode up

1 from Chattanooga with Mr. Dotson and you rode back with  
2 Mr. Albright?

3 A. That's correct.

4 Q. Dotson left the inspection process early  
5 because he had some other work to do, is that right?

6 A. Not necessarily early. He inspected the areas  
7 he wanted to inspect with us. When we went to the other  
8 facilities that he wasn't going to be involved with, at  
9 that time, yes, he left.

10 Q. He didn't need to be there?

11 A. Yes.

12 Q. You are aware from your other work in  
13 engineering what "best practices" are aren't you?

14 A. Yes, sir.

15 Q. Tell the Court what best practices are.

16 A. Best practices would just be to use the  
17 standards and research that may have been done before  
18 the function or design that you are working on to make  
19 sure that you have developed or given your, used the  
20 best knowledge to your, you know, to develop that  
21 design.

22 Q. Did you follow best practices in the  
23 inspection that went on out there in October of 2008?

24 A. Yes. To my knowledge, we used the best  
25 practices that were known for a visual inspection for

1 that type of facility.

2 Q. How do you know that you used the best  
3 practices, if you don't know any practices that applied  
4 out there?

5 A. I was with Mr. Albright who had done several  
6 of these inspections, Mr. Dotson who had done some of  
7 these inspections. I was relying on their knowledge to  
8 help me understand what was going on, plus all my prior  
9 experience that I had maybe not necessarily for these  
10 type of facilities, but the experience I had learned  
11 that I had gained from my engineering work and from  
12 training that would help me to inspect visually these  
13 facilities.

14 Q. Let's talk about that just a minute. You had  
15 not inspected a dike for TVA or anyone else before that  
16 October 20th date of 2008, correct?

17 A. Yes, sir.

18 Q. You had no training on embankment stability  
19 had you?

20 A. I wasn't out there to check for stability.

21 Q. I am not trying to argue with you. Just  
22 listen to my question. You had no training on  
23 embankment stability had you?

24 A. I had no training on embankment stability, but  
25 I don't get the reference for that question because we

1 were visually observing which you would be observing for  
2 erosion and I could, you know, based on my engineering  
3 knowledge I know if erosion is severe enough that it  
4 can --

5 Q. Fair enough. You didn't have any training on  
6 embankment stability, but you didn't think you needed  
7 any, is that what you are telling me?

8 A. Not for this visual inspection.

9 Q. You had no training on dike stability either,  
10 did you?

11 A. No, sir.

12 Q. You didn't have any training on how to conduct  
13 an embankment inspection, did you? Other than what you  
14 were orally told as you walked around. You had no  
15 pretraining?

16 A. That is why I was there, to get my training  
17 from the people that were with me.

18 Q. Mr. Buttram, did you tell the Office of  
19 Inspector General that you were the lead engineer on  
20 this inspection?

21 A. No, sir, I do not recall that.

22 Q. If you told them that, that would be  
23 incorrect? Is that right?

24 A. Yes, sir.

25 Q. Let me show you then the reference that I

1 would like to ask you about. If you would, this is for  
2 impeachment purposes, pull up Exhibit 4559. I want you  
3 to go to the second paragraph. The first sentence --

4 I guess I want to identify this first for the  
5 record. It has your name there, James Chris Buttram,  
6 Civil Engineering, Tennessee Valley Authority. Do you  
7 remember giving a statement to investigators Joseph Bohr  
8 and Chris Allen on July 8th, 2009 at the Inspectors  
9 General's Office. Do you remember giving them a  
10 statement, sir?

11 (Exhibit No. P-4559 was marked for  
12 identification.)

13 A. I remember having an interview with them, yes.

14 Q. And they asked you questions, right?

15 A. They did ask questions.

16 Q. And you gave answers?

17 A. That is correct.

18 Q. You tried your best to give them truthful  
19 answers?

20 A. Yes, sir.

21 Q. And you, as a matter of fact, you were told  
22 before you were interviewed that this was part of an  
23 inspection they were doing on the coal ash disaster that  
24 occurred on December 22nd, 2008, right?

25 A. Yes, sir.

1 Q. And they, did they caution you anything about  
2 your responses and how you were being interviewed by  
3 government agents as a lead in to giving this statement?

4 A. I can't recall.

5 Q. You knew it was a serious matter though,  
6 didn't you?

7 A. Yes, sir, I knew it was serious.

8 Q. And if you pull the second full paragraph up.  
9 "TVA hired Buttram in June of 2008." That's correct,  
10 isn't it?

11 MR. MARQUAND: Objection. This is  
12 hearsay. It hasn't been established as a statement.  
13 This is somebody else's notes.

14 MR. FRIEDMAN: I am offering it to refresh  
15 the witness.

16 MR. MARQUAND: I object, Your Honor.  
17 Counsel indicated it was for --

18 THE COURT: Respond to the objection.

19 MR. FRIEDMAN: I am referring, first of  
20 all, to set a predicate to refresh the witness'  
21 recollection. After establishing a proper predicate, I  
22 may or may not offer it. At least, we are calling this  
23 witness as an adverse witness. We have the ability to  
24 either refresh this recollection under the rule or to  
25 use it for impeachment which we would use both methods

1 right you, now, Your Honor.

2 MR. MARQUAND: I misunderstood. I thought  
3 counsel said he was offering it for impeachment. If he  
4 is offering it to refresh his recollection, there needs  
5 to be some kind of foundation established.

6 THE COURT: I believe there has been some.  
7 I will overrule the objection.

8 BY MR. FRIEDMAN:

9 Q. The second sentence of the second paragraph.  
10 I will read this. Make sure I get it right. "He was  
11 the lead engineer for the most recent inspection of the  
12 Kingston Fossil Plant KIF ash containment pond." Did I  
13 read that correctly?

14 A. Yes, sir, you read that correctly.

15 Q. Did you tell the Inspector General  
16 investigators that you were the lead engineer for the  
17 most recent inspection?

18 A. No, sir, I do not remember telling them that I  
19 was lead inspector for this inspection.

20 Q. If you, if they have, if they got that  
21 information it wasn't from you?

22 A. No, sir.

23 Q. Do you dispute that you were the lead  
24 engineer?

25 A. Yes, sir. I do.

1 Q. Who was the lead engineer?

2 A. I don't know who would be the lead engineer.  
3 I was there with Mr. Albright to follow along and learn  
4 how those inspections were done.

5 Q. You don't know who the lead engineer on the  
6 inspection was, if it wasn't you?

7 A. I would say it would be Mr. Albright.

8 Q. All right. You believe Mr. Albright was the  
9 lead engineer? Is that right?

10 A. Yes, sir.

11 Q. But yet Mr. Albright did not author the final  
12 inspection report, did he?

13 A. No, sir, he didn't author the report. That  
14 doesn't necessarily mean that is the lead engineer.

15 Q. Okay. Let me ask you another question about  
16 this document while I have it up. I want to talk about  
17 what you were trained to do and what you actually did  
18 out there.

19 Now, at the time you were out there you have  
20 already told us you had no knowledge of any written  
21 standards, right?

22 A. Yes, sir.

23 Q. And you never read any TVA rules or  
24 regulations for conducting a comprehensive Annual Ash  
25 Pond Dike Stability Inspection?



1           A.    Yes, sir, at that time I had not.

2           Q.    Did anyone tell you while you were out there  
3   that the title of the inspection that you were  
4   performing, the Annual Ash Pond Dike Stability  
5   Inspection was wrong?  You said this title of the  
6   inspection is a misnomer or is incorrect.  When did you  
7   first learn that?

8           A.    That would have been sometime after the  
9   writing of the report.

10          Q.    So when you wrote the report you thought you  
11   were writing an Annual Ash Pond Dike Stability Annual  
12   Inspection Report, right?

13          A.    I knew I was writing a report on the  
14   inspection.  I didn't really reference to the title of  
15   it.

16          Q.    Your name is right on the front page.

17          A.    That's just the title it had always been  
18   given.

19          Q.    So you ignored the title?

20          A.    Not necessarily I ignored it.  That's the  
21   title that it had been given prior.  I was following --  
22   I had no need to ask why it would need to be changed at  
23   that time.

24          Q.    Very good.  The only document you had been  
25   given for this annual inspection you provided at the

1 time you got there, right?

2 A. I can't remember if it was provided at the  
3 time. I believe I printed it off and had it myself.

4 Q. Did you review it beforehand?

5 A. I looked at it on the way up, on that day on  
6 the way up to the fossil plant.

7 Q. Now, let me go through a couple of  
8 housekeeping things, if I may, with you very quickly.  
9 On the day you were out there I believe that yourself as  
10 well as Mr. Dotson took pictures, correct?

11 A. Yes, sir.

12 Q. And correct me, if I am wrong. Didn't  
13 Mr. Albright take some pictures as well?

14 A. He might have taken a couple.

15 Q. At the time the inspection was going on on  
16 that day on October 20th, Mr. Dotson also had a GPS,  
17 right?

18 A. Yes, sir, he had a hand-held GPS.

19 Q. A hand-held GPS. That GPS, if I understand  
20 what you told us in the deposition, is that it was a GPS  
21 where he could enter way points or positions and put a  
22 short description with those, correct?

23 A. That's correct.

24 Q. And following the inspection you were provided  
25 with Mr. Dotson's way points or GPS information,

1 correct?

2 A. Yes, sir.

3 Q. And all three sets of photographs.

4 A. There were two sets of photographs. There was  
5 one camera used between Mr. Albright and myself.

6 Mr. Dotson had a camera.

7 Q. Thank you for clearing that up. There are  
8 three people taking pictures, but only two cameras being  
9 used?

10 A. That is correct.

11 Q. I want to ask you to go to Plaintiff's  
12 Exhibits 189, 6044, 6045 and 6043 and I want you, if you  
13 would, to identify those documents and we'll offer those  
14 as soon as we have identified them. Exhibit 189 is in  
15 front of the there and should be one of the first one  
16 following 538. It's a document and e-mail from Jamey  
17 Dotson to you dated Monday, October 27th, 2008.

18 (Exhibit Nos. P-189, 6044, 6045  
19 and 6043 were marked for  
20 identification.)

21 A. 189, correct?

22 Q. Yes, 189. Are those the way points and  
23 descriptions that Mr. Dotson sent to you following the  
24 inspection?

25 A. Yes, sir, these are the way points that

1 Mr. Dotson sent to me following the inspection.

2 Q. One week after the inspection, according to  
3 the date of 189.

4 Then we have the three sets of photographs. I  
5 will tell you, for the record, 6044 has 20 pictures.  
6 They have time and date stamps on them. I believe that  
7 from your prior testimony that these date stamped  
8 pictures are those pictures taken by Mr. Dotson. Can  
9 you identify those, 6044? There is 20 pages and some of  
10 the pages have multiple pictures. I believe those were  
11 introduced in your deposition.

12 A. Yes, sir, these would be photographs taken  
13 from Mr. Dotson's camera.

14 Q. 6045 is a document that has additional  
15 pictures with it. I believe they may be mixed with some  
16 of yours, but for the sake of making sure we have all of  
17 the pictures that you took out there that day, we offer  
18 6045, a 23 page document with some multiple pictures on  
19 each page based on the way they were produced to us. Do  
20 you recognize those, Mr. Dotson (sic)?

21 A. I see the ones taken by Mr. Dotson. I don't  
22 see the ones that would have been taken from the camera  
23 that I had.

24 Q. Those might be in 6043. Those do not have  
25 time stamps on the pictures.

1 THE COURT: Let me clarify what you are  
2 seeking to introduce; 6043, 6044 and 6045 and the e-mail  
3 document -- what was the number of that one, again?

4 MR. FRIEDMAN: 189.

5 THE COURT: Are you asking to introduce  
6 that one as well at this time?

7 MR. FRIEDMAN: Yes, Your Honor.

8 THE COURT: List the numbers gain. Is  
9 there any objection to those documents by TVA?

10 MR. MARQUAND: No objection to 189. We  
11 have not had an opportunity to review 6043, 44 and or  
12 45. We were notified this morning of the Plaintiff's  
13 Exhibit numbers. If the witness says those are the  
14 pictures taken that day, we don't object.

15 THE COURT: We'll let Mr. Buttram review  
16 them.

17 MR. FRIEDMAN: They are all deposition  
18 exhibits.

19 THE COURT: Once he has reviewed them --  
20 let's see if he can identify them.

21 THE WITNESS: 6043 has two sets, the  
22 pictures that would have been taken by Mr. Albright or  
23 myself and then photos from Mr. Dotson's camera as well.

24 MR. FRIEDMAN: We offer, at this time we  
25 also offer the policies and procedures that I questioned

1 the witness on, Plaintiff's Exhibit 538.

2 THE COURT: Mr. Buttram, can you identify  
3 the pictures in 6044 and 6045 as well, as pictures taken  
4 by you or others during the inspection?

5 THE WITNESS: Yes, Your Honor. These were  
6 photos taken by Mr. Dotson in 6044.

7 THE COURT: Thank you. The Court will  
8 introduce or admit into evidence plaintiff's 6043, 6044  
9 and 6045. Any objection to plaintiff's 538, which are  
10 the engineering procedures discussed earlier?

11 MR. MARQUAND: No objection.

12 THE COURT: The Court will also admit  
13 plaintiff's 538 and plaintiff's 189. I may have already  
14 said that.

15 (Exhibit Nos. P-189, 6044, 6045,  
16 6043, 538 were received in  
17 evidence.)

18 BY MR. FRIEDMAN:

19 Q. Let's see if we can agree on some terms as we  
20 discuss what happened out there at the time of the  
21 inspection. You had printed off an old report that was  
22 the report from 2008, the Annual Ash Pond Dike Stability  
23 Inspection Report, right?

24 A. Yes, sir.

25 Q. And you had that on the drive up from

1 Chattanooga to Kingston and you believe you read over  
2 it, is that right?

3 A. Yes, sir, that's correct.

4 Q. And you used that old report to make notes on,  
5 right?

6 A. Yes, sir.

7 Q. After you all started your walk around the  
8 facility. Would that be correct?

9 A. Yes, sir, that's correct.

10 Q. And did you discuss any geotechnical terms  
11 either before or during the inspection?

12 A. We didn't discuss the meanings of any  
13 geotechnical terms during the inspection.

14 Q. Any geotechnical terms that you used, you had  
15 your own idea of what those meant?

16 A. Yes, sir, I had the idea of what I thought  
17 they meant and also if they were used by Mr. Dotson or  
18 Mr. Albright, after we would discuss certain areas that  
19 we were looking at.

20 Q. For example, we have talked about here in  
21 opening statements the term "seep." Seep, tell the  
22 Court what your understanding of seep was at the time  
23 you were out there.

24 A. At the time I was out there my understanding  
25 was that seep was just where water has moved through the

1 material that is within the impoundment and then travels  
2 in through the dike and may exit out either at the toe  
3 or mid slope of the dike.

4 Q. Did you have an understanding of what a "wet  
5 spot" was, as it related to the dikes?

6 A. At that time I didn't have a full  
7 understanding of what a wet spot was. I knew that that  
8 was just the general description to be given for an area  
9 that was wet. There was no flowing water.

10 Q. Do you know whether or not a wet spot was  
11 something to be concerned about?

12 A. I knew that we would -- if we noticed a wet  
13 spot, we would mark it down, but then we would also  
14 notify others there at the plant so they could continue  
15 to monitor it to see if it either disappeared, dried up  
16 or was to get larger. That way they could notify us in  
17 that case.

18 Q. At the time of your inspection you didn't know  
19 the difference between a seep and a wet spot, if there  
20 was any difference, did you? Did you, sir?

21 A. At the time of the inspection I would say, no.  
22 During the inspection discussing with Mr. Albright and  
23 Mr. Dotson, I would have discovered what the differences  
24 would have been.

25 Q. I want to show you page 104 of your



1 deposition. You should have your deposition right  
2 there. I want to show you I asked you a question. --  
3 first of all I asked, I want to ask you this. Do you  
4 know what a permit violation would be as you, at the  
5 time you inspected those dikes -- do you know if you saw  
6 something that would have been a violation of TVA's  
7 permits or any rules and regulations?

8 A. At that time I wouldn't have known what exact  
9 permit violations would be.

10 Q. All right. So you gave us a definition of a  
11 seep. Then I asked you. "Do you know what the  
12 difference is between a wet spot and a seep?" There at  
13 line 22. Would you read your answer to the Court.

14 MR. MARQUAND: Objection. This isn't  
15 proper impeachment. He hasn't asked him the question.  
16 I don't understand. It isn't inconsistent. It's not  
17 impeachment. Why are we reading the deposition?

18 MR. FRIEDMAN: I asked his witness if he  
19 knew the difference between a wet spot and a seep. He  
20 said an answer that was equivocal. In his deposition he  
21 clearly said he didn't know the difference. I was just  
22 trying to --

23 THE COURT: I will allow you to ask on  
24 this point with that explanation. You might move the  
25 page up a little bit on the screen. The question is

1 simply do you recall giving his answer at your  
2 deposition?

3 THE WITNESS: Yes, sir, I recall giving  
4 this answer.

5 BY MR. FRIEDMAN:

6 Q. So you don't know the difference or you didn't  
7 know at the time of the inspection the difference  
8 between a wet spot and a seep, did you?

9 A. I said I didn't know at time of the inspection  
10 -- that I didn't know the difference between, but I had  
11 Mr. Albright there to help explain so I would learn the  
12 difference.

13 Q. Are you telling us he explained it to you?

14 A. We had discussions, yes, sir.

15 Q. You are saying he explained the difference  
16 between a wet spot and a seep, sir? At your deposition  
17 you said you didn't know.

18 A. Yes, sir, I said I didn't know. It doesn't go  
19 any further than that.

20 Q. I am not trying to parse words with you. If  
21 you didn't know at your deposition, your deposition was  
22 taken in June of 2009. You didn't know at the time of  
23 your deposition the difference between a wet spot and a  
24 seep. Based on the natural order of things, you  
25 wouldn't have known in October 2008 either, would you?

1           A.    Yes, sir, at the time of the inspection I did  
2 not know the difference between the wet spot and seep.

3           Q.    And didn't know if that was important or not,  
4 did you?

5           A.    Before the inspection I wouldn't have known if  
6 it was important, yes, sir, but I had Mr. Albright there  
7 to help me understand.

8           Q.    Did he tell you it was important?

9           A.    Yes, sir, as part of the training we would  
10 discuss and collaborate, as we would see things.

11          Q.    Did he tell you a seep was important?

12          A.    I can't recall if he exactly said a seep was  
13 important. Yes, that is something we would mark down to  
14 notify that it was there so we could monitor it and have  
15 plant personnel notify them so they could continually  
16 monitor it.

17          Q.    Have you ever heard the term before the  
18 inspection of a "slough" before?

19          A.    No, sir, I can't say that I heard the term  
20 "slough" before the inspection.

21          Q.    Now, just to make sure we are on the same page  
22 because at times the word is written differently on the  
23 reports. I believe you handwrote it once using the  
24 spellings s-l-u-f-f, but isn't it is also spelled  
25 s-l-o-u-g-h.

1           A.    I have seen it spelled both ways.

2           Q.    Either spelling you and I are communicating  
3 talking about the same thing, right?  Whether you spell  
4 it your way or another.  Either one of those two ways we  
5 are talking about the same thing, right?

6           A.    In terms of the word, yes, sir.

7           Q.    Now, let's go on.  Now we tried to the spell  
8 the word a couple of different ways.  Let's talk about  
9 what it means.  What is a slough?

10          A.    I have heard the term "slough" used in many  
11 different ways.  I believe it's based on the opinion of  
12 the person using it.

13          Q.    How would you use it?

14          A.    I would use the term slough just as in general  
15 cases of erosion, if you had an erosion gully or  
16 something, your sides could be sloughing off into the  
17 erosion gully.  You might have a small area of topsoil  
18 or something that had not had any vegetation on it yet  
19 and it had sloughed off a little bit.

20          Q.    Does slough, was slough explained to you at  
21 the time of the inspection as an area of material moving  
22 out and downward from the dike?

23          A.    I can't recall exactly at that time what it  
24 was explained to me as.

25          Q.    What is your understanding of what a slough is

1 then? What did you understand it to be, when you were  
2 out there?

3 A. Just as I explained it. I would have seen  
4 that the erosion areas that we had seen that some of the  
5 sides were sloughing off. This would have come from  
6 discussion with Mr. Albright and Mr. Dotson. I would  
7 have just picked up on the terms they were using at that  
8 time.

9 Q. Were you told that slough was something that  
10 was important to note in an inspection?

11 A. I can't recall if it was exactly explained  
12 that it was important to note, but we would have noted,  
13 yes, that if we had seen an area that was sloughed off  
14 that it would need some maintenance repair to it.

15 Q. During the time of your inspection were the  
16 terms "seep, wet spot, slough" ever associated or  
17 explained to you as being potentially related to dike  
18 failure?

19 A. No, sir. They were never explained in that  
20 way.

21 Q. Going back to Exhibit 189 that was provided to  
22 you after the inspection by Mr. Albright, if you will  
23 turn to the third page of Mr. Dotson's GPS points that  
24 he gave to you. I believe your testimony, and prior you  
25 explained that the way points 20 through 30 pertain to

1 the GPS points that Mr. Dotson marked on October 20th,  
2 2008, the time of your all's inspection out there. Do  
3 you remember that?

4 A. Looking at the third page it is hard to tell  
5 in reference to which numbers since the row numbers  
6 don't match with the exact way point number that can be  
7 seen on sheet 2. I think they are off by one.

8 Q. So, some --

9 A. Yes, way point numbers 20 through 30 would be  
10 the numbers, but looking at Sheet 3 you can't use  
11 numbers 20 through 30 there.

12 Q. I am not going to try to get into reconciling  
13 way points or GPS points right now. Looking only on  
14 Page 3 of Exhibit 189, those ten points right there were  
15 points that you know from your personal knowledge that  
16 Mr. Dotson inputted during your October, 2008  
17 inspection, right?

18 A. Yes, sir, that's correct.

19 Q. And if you would, I want you to go through the  
20 list beginning with 20 and going through 30 and tell the  
21 Court how many times Mr. Dotson mentions the word  
22 "slough." There is one at 20, there is one at 23, I  
23 believe there is one at 26, and one at 27. Do you see  
24 that?

25 A. Yes, sir, I see that.

1 Q. Did you ever discuss Mr. Dotson's finding of  
2 sloughs, as he reported on his GPS, with him?

3 A. I can't recall at that time if that word was  
4 used, as he was entering it into his GPS.

5 Q. Did you discuss it with him at that time or  
6 any time?

7 A. I can't remember it being discussed at that  
8 time or any time immediately after the discussion, no,  
9 sir. It has been discussed since between now and then.

10 Q. You discussed it with Mr. Dotson?

11 A. Just in general discussions, yes, afterwards.

12 Q. When is the first time you discussed it with  
13 him? It was after your report was written, right?

14 A. That would probably have been the first time,  
15 yes, sir. I can't say when.

16 Q. It would have been after your report was  
17 written?

18 A. Yes, sir.

19 Q. Let's see -- I apologize if I am not moving  
20 through this at a faster pace. This is important. I  
21 might be a little nervous. You probably are nervous  
22 too. Let's see if we can agree on some dates, okay. We  
23 know you were out there October 20th, 2008, right?

24 A. Yes, sir.

25 Q. We know the dike failure was on December 22nd,

1 2008, correct?

2 A. Yes, sir.

3 Q. And we know from the point in time you made  
4 your inspection up to the point of the dike failure you  
5 did not write your report, did you?

6 A. Yes, sir, that's correct, the report was  
7 written after the dike failure.

8 Q. Now, at the time of the dike failure the  
9 photographs, those exhibits 6044, 6045 and 6043 -- I am  
10 sorry I read those out of order. It would be 43, 44,  
11 45 -- you had those in your possession or on your  
12 computer?

13 A. Yes, sir, they were either on my computer or  
14 on the TVA server.

15 Q. Fair enough. Also you had the way points and  
16 the descriptions from Mr. Dotson that have been  
17 identified and we have talked about Exhibit 189,  
18 correct?

19 A. Yes, sir, that's correct.

20 Q. Now, nobody kept you from writing your report  
21 up sooner, did they?

22 A. No specific person said -- no, that was me  
23 prioritizing the workload that I had at that time.

24 Q. Sure. You prioritized, you never were given a  
25 due date at some point in the future. You prioritized



1 and by December 23<sup>rd</sup> you just had not gotten around to  
2 it. Fair enough?

3 A. I had begun to write my report before the  
4 failure had happened, or I was prepping.

5 Q. Excuse me?

6 A. As I stated before, the preparation began the  
7 weekend before the failure. Then I was to be out of  
8 town on a railroad inspection the next week. I had  
9 began gathering documents to start the writing of the  
10 report.

11 Q. When did you start working on your report? I  
12 am confused.

13 A. It would have been the Friday before the  
14 failure.

15 Q. And you didn't finish?

16 A. I said I had been gathering reference  
17 information. I was pulling together all of the  
18 information that I had at my disposal.

19 Q. What information were you pulling together  
20 besides the photographs?

21 A. I had the photographs. I had the way points  
22 that I inputted into an AutoCAD drawing.

23 Q. And what else?

24 A. That was -- and my notes.

25 Q. When we talk about your notes just a minute --

1 I don't want to belabor this. I believe the record will  
2 show that following the coal ash disaster on the 22nd  
3 you couldn't find your notes, could you? Is that right?

4 A. At the time I began to write the report after  
5 the failure, I could not locate my notes.

6 Q. And you had your handwritten notes there at  
7 your office in Chattanooga right before the dike  
8 failure?

9 A. Before the failure I had the notes in my  
10 cubical.

11 Q. Afterwards when you went back to start writing  
12 your report, you couldn't find them?

13 A. Yes, sir. After the failure had happened and  
14 everything it had been asked, people had been asked to  
15 look at, you know, they looked at my notes and  
16 everything. They had been misplaced.

17 Q. At the time you actually wrote your report you  
18 did it without the benefit of your notes, right?

19 A. I did it without the benefit of my notes. I  
20 had Mr. Albright's notes.

21 Q. I am not saying you didn't have any notes. I  
22 am saying you didn't have yours, right?

23 A. Yes, sir, that's correct.

24 Q. And did you make that known to the people  
25 there that you worked with that you didn't have your

1 notes, when you were doing the report?

2 A. Yes, sir.

3 Q. And you relied on other notes from  
4 Mr. Albright and Mr. Dotson, is that right?

5 A. Yes, sir, as well as the pictures.

6 Q. As well as the pictures. Okay. Then, we were  
7 actually, your notes were found I believe sometime in  
8 2009. I will show you Plaintiff's Exhibit 187, if you  
9 would pull that out. This is a cover letter I believe  
10 where your notes were forwarded to us.

11 (Exhibit No. P-187 was marked for  
12 identification.)

13 Q. Do you have Exhibit 187 there in front of you?

14 A. Yes, sir, I do.

15 MR. FRIEDMAN: Offer Plaintiff's Exhibit  
16 187.

17 MR. MARQUAND: No objection, Your Honor.

18 THE COURT: So admitted.

19 (Exhibit No. P-187 was received in  
20 evidence.)

21 BY MR. FRIEDMAN:

22 Q. According to this your notes were found in an  
23 empty cubical, is that right?

24 A. It was a cubical that had reference documents.  
25 There was no person sitting in it at that time.

1           Q.   Those notes were found sometime around the  
2   December of 2009 time period.  Would that be consistent  
3   with your recollection?

4           A.   Yes, sir.

5           Q.   And your actual notes would be Exhibit 188.  
6   Can you identify Exhibit 188 as the actual notes you  
7   made on October 20th, 2008?

8                       (Exhibit No. P-188 was marked for  
9                       identification.)

10           MR. FRIEDMAN:  For the record, Exhibit 188  
11   has a cover sheet dated January 31, 2008.  From  
12   Mr. Barry Kimsey, the manager of Engineering Design  
13   Services and attaches a copy of a preceding year, 2008  
14   stability report.  Do you recognize that?

15          A.   Yes, sir.

16          Q.   And do you see your notes, your handwritten  
17   notes on this document that would be there in the last  
18   two or three pages of the document?

19          A.   Yes, sir, I see my notes on the sketch, and  
20   the sketch it would be the second to the last page of  
21   the document, the third to the last page of this  
22   document.

23          Q.   And then if you flip to the very last page you  
24   see --

25          A.   Yes, sir, some other notes on the back of a

1 page.

2 Q. Since we didn't copy on the back of the page  
3 that is attached -- this is your writing, the notes that  
4 you made at the inspection?

5 A. Yes, sir.

6 MR. FRIEDMAN: Offer Plaintiff's 188, Your  
7 Honor.

8 MR. MARQUAND: No objection, Your Honor.

9 THE COURT: Thank you. So admitted.

10 (Exhibit No. P-188 was received in  
11 evidence.)

12 BY MR. FRIEDMAN:

13 Q. Now, you said on your way to Kingston that you  
14 had a chance to review this report, this stability  
15 report. I want to ask you a couple of things on the  
16 report to see if these things, if you read them while  
17 you were going up there. If you look at the -- if you  
18 look at Page 5 of the report. Are you there with me?

19 A. Yes, sir.

20 Q. Do you see on Page 5 midway down there is a  
21 paragraph that says, "Since last year's inspection ash  
22 was dredged into Cells 1, 2 and 3 to such levels that  
23 the divider dikes for Cell 3 were buried and now there  
24 are only two large dredge cells, 1 and 2." Did I read  
25 that right?

1 A. Yes.

2 Q. Then it goes on to say, "Dredging was stopped  
3 in mid November of 2007 based on recommendations from  
4 EDS and Geosyntec consultants. This preventative  
5 measure was taken to reduce water levels in the dredge  
6 cell throughout the winter months in an attempt to avoid  
7 another blowout." Did I read that correctly?

8 A. Yes, sir.

9 Q. Was it brought to your attention that the year  
10 before you were up there that dredging was stopped to  
11 avoid another blowout?

12 A. I don't recall it being discussed.

13 Q. Did you read this written record and did you  
14 know what it meant?

15 A. Yes, sir. As I said, I read over this. I  
16 can't say that I picked out everything.

17 Q. Well, you know what dredging is, don't you?

18 A. Yes, sir.

19 Q. Did you know it at the time of your inspection  
20 in October of '08?

21 A. Yes, sir.

22 Q. Tell the Court what dredging is.

23 A. Dredging is just a way of undercutting in  
24 water by the use of a pump. You use water and as you  
25 were cutting underneath in the water the soil or

1 whatever to try to get the pond, or it can be used at  
2 varying given places. Here at the ash pond they would  
3 be trying to lower the bottom level of the ash pond so  
4 it could receive more ash. It would be done by a boat.  
5 They would pump the ash with water over into the dredge  
6 cell.

7 Q. That's a way to put more ash into the dredge  
8 cells or containment cells, correct?

9 A. Yes, sir.

10 Q. And dredging, when you went out there in  
11 October of 2008, was it ongoing or was it stopped?

12 A. Dredging was ongoing at that time.

13 Q. Now, at that point in time in the year had it  
14 been raining? Had it been wet?

15 A. I do not recall any rain at this time. I  
16 can't say that it hadn't been before or after.

17 Q. Was there any question in your mind as to why  
18 dredging was going on in the fall of 2008, when it had  
19 been halted in the fall of 2007?

20 A. At that time, sir, no, none of this was  
21 discussed.

22 Q. It wasn't discussed. Okay. You knew what a  
23 "blowout" was, though, didn't you?

24 A. I was aware of the blowouts, yes, sir.

25 Q. How did you become aware of the blowouts?

1           A.    I became aware of the blowouts when I took  
2   over receiving the -- there is some drive-point  
3   piezometers and well points along the west side of  
4   Dredge Cell A.   Around August I took over the monitoring  
5   using the program developed by Geosyntec.   I would  
6   receive the raw data from TVA Environmental Engineering  
7   monthly.   As some background information for why those  
8   drive-point piezometers were there, I had been given  
9   some background information on blowouts.

10          Q.    Were you told that those well points and that  
11   data that you were inputting beginning in July or August  
12   of 2008 was to help prevent blowouts from occurring?

13          A.    I knew they were used to monitor the  
14   groundwater level, which before they had made the  
15   repairs and everything the groundwater leveled had risen  
16   up and had caused some piping and the blowouts in that  
17   area.   They were used just to help to monitor the  
18   groundwater level to see if it was still rising in that  
19   area.

20          Q.    Did you pay attention to groundwater levels,  
21   when you were there in October of 2008?

22          A.    Yes, sir, we looked at the -- as we were  
23   walking along the west side of the dredge cell, we  
24   looked in the area of the piezometers and everything to  
25   see if they were, if there were any broken at the time



1 or -- but as to you can't, you have to have the proper  
2 equipment to actually check the piezometers and  
3 everything. No, we were not out there to check the  
4 groundwater level itself.

5 Q. You did not have the equipment in this  
6 inspection to check groundwater levels, did you?

7 A. That was not the purpose of that inspection.  
8 We had somebody that was monthly grabbing the  
9 groundwater data.

10 Q. If you wanted to, if you wanted to say we need  
11 to check in this stability inspection we are doing right  
12 now we need to check groundwater levels, you didn't have  
13 what you needed to do it, did you?

14 MR. MARQUAND: Objection. Asked and  
15 answered.

16 THE COURT: He may have answered. Did you  
17 have the equipment to do so, if you wanted to?

18 THE WITNESS: No Your Honor, we didn't  
19 have the equipment there because we were not there to do  
20 a stability inspection. It was just a visual  
21 inspection.

22 THE COURT: Thank you. Let's go ahead and  
23 stop right here. We'll take our lunch break. Why don't  
24 we reconvene at 1:30.

25 (Off the record.)

1 (Back on the record.)

2 THE COURT: Thank you. Good afternoon  
3 everyone. You may continue Mr. Friedman.

4 MR. FRIEDMAN: May it please the Court.

5 Good afternoon, Mr. Buttram.

6 BY MR. FRIEDMAN:

7 Q. We were talking about a number of things. To  
8 try to put some context into where we are going to begin  
9 and pick up this afternoon let's go back to that day on  
10 October 20th, 2008, during your inspection.

11 Now, we have offered and have been admitted  
12 into evidence three stacks of photographs. I want to  
13 use the exhibit, let's go with Exhibit 6045. The reason  
14 I am doing that is I will tell you ahead of time is to  
15 set a time sequence for the day.

16 You all drove up from Chattanooga to Kingston.  
17 We have already talked about that. When you got there  
18 you all started walking around the dikes, correct?

19 A. Yes, sir, that's correct.

20 Q. And I know you didn't start using your camera  
21 the minute you opened up the door of your vehicle, but  
22 at some point in close proximity to when you all got  
23 there and started your inspection would you agree that  
24 you started taking pictures?

25 A. Yes, sir, that would be correct.

1           Q.   All right.  I believe the camera you used did  
2 not have a time stamp on it, but the camera that  
3 Mr. Dotson used did have a time stamp on it, didn't it?

4           A.   Yes, Mr. Dotson's camera did have a time  
5 stamp.

6           Q.   I believe you testified previously that you  
7 believe the time stamp on Mr. Dotson's camera was  
8 accurate?

9           A.   Yes, sir, to my knowledge it was accurate.

10          Q.   And based on, we went over this in deposition.  
11 I am not making this a trick question.  You correct me  
12 if this is wrong.  Looking at the date stamp, date and  
13 time stamps of the photograph, our first time stamped  
14 photograph at least from Mr. Buttram -- excuse me you  
15 are Mr. Buttram -- from Mr. Dotson's photographs was  
16 around the area of 10:41.  I will tell you these  
17 photographs do not have, they are not in time order.

18               I believe we have a date stamp for the time  
19 that is 277787 of Exhibit 6043.  This is a time stamp  
20 from October 20th, 2008.  You can see it on your screen,  
21 sir.

22          A.   Yes, sir.

23          Q.   It will save you some time.  I am not going to  
24 begin to ask you here today with your limited time to go  
25 back in and check all of the date stamp numbers or all

1 of the time stamp numbers, but if I represent to you  
2 that was the earliest one that we have been able to put  
3 our hands on from a time stamp, would that be consistent  
4 in your recollection about the time that you started  
5 taking photographs that day?

6 A. Yes, sir, to my recollection that would be  
7 around the first time with the first picture.

8 Q. Again, I am not doing this to surprise you. I  
9 believe we went over it in your deposition. I think the  
10 last photograph of the morning session was, had a time  
11 stamp on it of 11:46. I think that is represented by  
12 date stamped number 277821. If I represented to you  
13 that was the latest date time stamp we have before you  
14 broke for lunch, would you agree, like you agreed with  
15 me in your deposition, that is about the time in the  
16 ordinary of course things about that time you would take  
17 a lunch hour or lunch break?

18 A. Yes, sir, I could agree that was near the time  
19 we would have broke for lunch.

20 Q. And then did the three of you go to lunch  
21 together; Mr. Albright, Mr. Dotson and yourself?

22 A. Yes, sir.

23 Q. And did you eat there on site or go off site  
24 or do you remember?

25 A. We went off site.

1           Q.   And you got back and the first picture we have  
2   from after lunch is around 277821 is the bate stamp  
3   number of the same exhibit. I think it will show a  
4   military time stamp of 13:28. I know because you told  
5   me you are familiar with military time.

6           A.   Yes, sir.

7           Q.   And if you translate 13:28 to civilian time,  
8   what would that be, about 1:30?

9           A.   Yes, sir, that would be around 1:30.

10          Q.   Would that be consistent with around the time  
11   you all started back in after your lunch hour on October  
12   20th, 2008?

13          A.   From my recollection that would have been  
14   close to the time we returned, yes, sir.

15          Q.   And the last time that we have is 16:33. I  
16   believe that is around what, 4:30, 16:33. Would it be  
17   around 4:30?

18          A.   Yes, sir, that's correct.

19          Q.   Would that be about the time that you recall  
20   Mr. Dotson stopping to take pictures?

21          A.   Yes, sir.

22          Q.   Now, you continued after Mr. Dotson left to  
23   take a few photographs, if I recall your testimony  
24   correctly.

25          A.   Yes, sir, Mr. Albright and myself continued to

1 inspect some of the other facilities.

2 Q. When you all left out there on the 20th -- do  
3 you recall what day of the week that was, by the way? I  
4 am not trying to make this a memory test. I am just  
5 asking.

6 A. No, sir, I can't recall which day it was.

7 Q. But you all left -- I believe you told me you  
8 all still had daylight at the time you all left?

9 A. To the best of my recollection there was some  
10 daylight left, yes, sir.

11 Q. And you didn't look at your watch to see what  
12 time you left that day, did you?

13 A. I can't recall if I did or not.

14 Q. The best evidence though that we have at least  
15 was when Mr. Dotson was out there is from the time stamp  
16 photographs, do you agree?

17 A. Yes, sir.

18 Q. Did you feel like you had enough time to do  
19 what you needed to do out there? I guess that was your  
20 first one. You wouldn't know one way or the other would  
21 you?

22 A. Yes, sir, we inspected everywhere. I felt  
23 like we had given it enough time.

24 Q. You didn't feel like they rushed you out of  
25 there, did you?

1 A. No, sir, we walked everywhere.

2 Q. I believe you said you walked the entire dike  
3 twice?

4 A. We walked the lower area around and then came  
5 back on the upper benches.

6 Q. So would that mean you did two circles around  
7 the facility?

8 A. For the most part, yes, sir.

9 Q. 84 acre containment area? Does that sound  
10 right?

11 A. I am not sure exactly the acreage that it was.

12 Q. Did you all walk a fairly brisk pace?

13 A. We didn't walk together. We spread out to  
14 cover.

15 Q. That is one of the things I wanted to cover.  
16 Mr. Dotson walked ahead of you all, didn't he?

17 A. I don't recall him walking ahead of us. He  
18 was walking apart from us so there would be some  
19 occasions where he would go take pictures of other  
20 places.

21 Q. Did you all spread out so you could cover more  
22 area? Is that what you were doing?

23 A. Yes, sir, we spread out so we could instead of  
24 all of us walking in one group we would all walk on a  
25 different bench level. When somebody would find

1 something, we would collaborate and discuss it.

2 Q. And you knew that Mr. Dotson took pictures of  
3 things on this own?

4 A. Yes, sir. I was aware of that.

5 Q. Now, let me ask you this. We'll get into the  
6 actual reports and things. This is a very basic  
7 question. I want to ask you, did you know at the time  
8 you were doing that inspection whether or not it was  
9 important for anything?

10 A. Yes, sir, I was from my prior experience with  
11 certain things that I had gained from experience just  
12 from engineering, my engineering background and other  
13 jobs I have worked at, I was aware of how to spot  
14 certain erosion. You know, I understand what water  
15 erosion gullies and rills are and that you need  
16 vegetation in areas, you know, to make sure that the  
17 soil doesn't erode. I was very aware of that. Then  
18 Mr. Albright and Mr. Dotson before we started the  
19 inspection had given me some basic background on things  
20 to look for.

21 Q. So you knew you were going out there to look  
22 for things. Did you have any idea on whether or not  
23 anybody was going to be depending on you to do that  
24 report that came out of your inspection?

25 A. I am not sure I follow that question, sir.



1           Q.    I asked you in your deposition do you have any  
2   idea of whether or not there was any importance to what  
3   you were doing out there?

4           A.    Yes, sir, I knew we needed to visually inspect  
5   these, to write the report to provide to the plants so  
6   any maintenance things that needed to be spotted would  
7   be done or if there was anything that needed to be  
8   monitored, if we found anything that needed to be  
9   monitored, we would locate that.

10          Q.    Did you have any idea that you were looking  
11   for the potential for signs that the dikes were failing?

12          A.    I mean, as a visual inspection, I didn't know  
13   that, but I would, you know, that is just something that  
14   I would say goes with the visual inspection.  You would  
15   look for signs of no matter the significance of the  
16   area, you know, whether it was small or bad, you are  
17   going to be looking for those type things.

18          Q.    And if you found something out there that was  
19   of importance, was it your understanding that you were  
20   to bring that to the attention of the people at the  
21   plant or in maintenance?

22          A.    Any maintenance type issues we found, yes,  
23   sir, they were placed in the recommendations of the  
24   report.  Having Mr. Dotson along who was the Program  
25   Manager of the Byproducts Disposal, that was his part of

1 his job function was that area. He was there as well.  
2 It would be noted to him and he would know it as well as  
3 what was listed into the inspection report.

4 Q. Here is my question. Did you have any  
5 understanding that you had a responsibility, as an  
6 engineer, if you saw something that had to be addressed  
7 that you had to bring it to the attention of the plant?

8 A. Yes, sir, I knew that as we were going along  
9 with the inspection Mr. Albright -- they would, they had  
10 given me the understanding that we weren't just going to  
11 wait until the report was written. If anything of big  
12 significance was noted, we could discuss it with the  
13 plant.

14 Q. And it would be dealt with immediately, if it  
15 was important?

16 A. Yes, sir.

17 Q. Now, I want to, at this point in time we are  
18 going to offer exhibit, Plaintiff's Exhibit 191, which  
19 is your final Annual Ash Pond Dike Stability Inspection  
20 dated January 12th, 2009, along with four drafts of the  
21 report and the four drafts include Exhibit Numbers 179,  
22 180, 181 and 182, and as we are admitting those can you  
23 please pull your copies out, Mr. Buttram, so you have  
24 them in that folder?

25 THE COURT: Any objection to those

1 documents?

2 MR. MARQUAND: I have no objection to the  
3 final report. Again, we don't have the plaintiff's  
4 exhibits. We weren't provided copies this morning, the  
5 numbers until this morning. We have not had a chance to  
6 look at these before, the previous drafts.

7 THE COURT: We'll admit at this point  
8 Plaintiff's 191 and then subject to identification by  
9 this witness at that time we'll introduce the drafts.

10 (Exhibit Nos. P-180, 181, 182 were  
11 marked for identification.)

12 (Exhibit No. P-191 was received in  
13 evidence.)

14 BY MR. FRIEDMAN:

15 Q. Mr. Buttram, would you get out Exhibit 179,  
16 please. Tell us when you have that in front of you.

17 (Exhibit No. P-179 was marked for  
18 identification.)

19 A. Yes, sir, I have it in front of me now.

20 Q. All right. Would you examine this and confirm  
21 for the Court whether or not this is your first draft  
22 that you did of an Annual Ash Pond Dike Stability  
23 Inspection for 2009 that was conducted in October of  
24 2008 and prepared in final copy in January of 2009. The  
25 only question I have pending is do you recognize it,

1 Mr. Buttram?

2 A. Yes, sir, sir, I recognize this as a --

3 MR. FRIEDMAN: Offer Plaintiff's Exhibit  
4 179.

5 THE COURT: So admitted.

6 (Exhibit No. P-179 was received in  
7 evidence.)

8 BY MR. FRIEDMAN:

9 Q. If you would, would you turn to Page 6 of your  
10 draft report. Are you there?

11 A. Yes, I am there.

12 Q. Do you see pictures, Figure numbers 12 and 13?

13 A. Yes, sir, I see those figures.

14 Q. Those are, you have them labeled "washout on  
15 dike bench." Did I read that correctly?

16 A. Yes, sir, you did.

17 Q. Does the text above the photographs, is that a  
18 commentary on the photographs below?

19 A. Yes, some of the commentary above is for those  
20 figures below.

21 Q. Is the highlighted text referencing the two  
22 photographs below?

23 A. Yes, sir, the highlighted text does reference  
24 those.

25 Q. And would you read that text into the record,

1 please.

2 A. "At the north end of the dredge cells one of  
3 the lower dike benches has an area that has eroded and  
4 washed out. See figures 12 and 3 below. This area  
5 should be repaired immediately by filling with clay in 6  
6 inch lifts and compacting."

7 Q. Those are pictures that were taken, were they  
8 not, by Mr. Dotson and as included in Exhibit 6045, part  
9 of Exhibit 6045 is part of his time stamped photographs.  
10 I guess my only question would be -- and I withdraw that  
11 and make it more concise.

12 Do you recall that these are pictures that  
13 Mr. Dotson took at the time of the October inspection  
14 and e-mailed to you?

15 A. Yes, sir, these would have been pictures that  
16 Mr. Dotson took.

17 Q. At the same time he e-mailed you the pictures  
18 in exhibit, Plaintiff's Exhibit 198, didn't he?

19 THE COURT: You mean 189?

20 MR. FRIEDMAN: I am dyslexic, Your Honor.  
21 Thank you, Exhibit 189.

22 Q. I apologize, Mr. Buttram. This is complicated  
23 enough. This is Exhibit 189, third page.

24 A. Yes, sir, these are the way points that  
25 Mr. Dotson e-mail me.

1           Q.    If you remember this morning I asked you to  
2   look at those and count with me all of the references of  
3   slough that he made.  I want to ask you if there is a  
4   correlation between these ten GPS points and one or both  
5   of the pictures that are included in your first draft of  
6   your report?

7           A.   Yes, sir, one of these does correlate to it.  
8   Without the map I produced, it's hard for me to know  
9   which one.

10          Q.   Well, okay.  Let's go back and get us some  
11   history of this.  When you were preparing to do your  
12   reports, you took Mr. Dotson's GPS points and attempted  
13   to place those on a map using a program called AutoCAD.  
14   Did I say that correctly?

15          A.   Yes, sir.

16          Q.   And by doing that that would allow you to  
17   correspond Mr. Dotson's input that are right there as  
18   part of 189 with the photographs that were taken, is  
19   that correct?

20          A.   It would give me the approximate location of  
21   these way points to help me reference where they were on  
22   the dredge cell.  That way I could place pictures, if  
23   needed, with these way points.

24          Q.   We do know that the pictures from your own  
25   report were taken on the north dredge cell, correct?

1           A.    Yes, sir, that is correct.

2           Q.    And do you know from your experience and  
3 knowledge that that was the area of the dredge cell that  
4 failed and collapsed on December 22, 2008?

5           A.    Yes, sir, I have heard that that is the area  
6 that is in question.

7           Q.    You know that because you were out there  
8 involved in part of the aftermath, right?  You saw that  
9 area with your own eyes.  It is gone?

10          A.    Yes, sir, correct.

11          Q.    I am not trying to play cute with you.  You  
12 know that area where this photograph is taken, 12 and  
13 13, that was part of area that was blown out, right?

14          A.    Yes, sir, that is part of the area that is not  
15 there any more, correct.

16          Q.    Now, I am not the engineer of this group, as I  
17 have probably proven to you already, but if you would be  
18 so kind as to look at Plaintiff's Exhibits 183 and 193  
19 and if you would, be so kind to do that, if you will set  
20 them side by side and before you begin talking about  
21 them I want you to think to yourself first whether you  
22 can identify them.  I believe you talked about them in  
23 your deposition.  Do you recognize those?

24                       (Exhibit No. P-183, 193 were  
25                       marked for identification.)

1           A.    Yes, sir, I recognize these.

2           Q.    What, for the record is Exhibit 183?

3           A.    183 is just a general sketch of the Kingston  
4 Fossil Plant ash disposal area. It is not to scale  
5 drawing or anything. It is just a general sketch to  
6 kind of give somebody reference to where they are.

7           Q.    Did you prepare this or have anything to do  
8 with this exhibit?

9           A.    No, sir, I just utilized it in my inspection  
10 report. I referenced the drawing sketch itself. I did  
11 not produce it. I added the drawing and the picture  
12 labels.

13          Q.    Let's talk about how did you go about adding  
14 those numbers that are on Exhibit 183?

15          A.    From the pictures that were taken by either  
16 myself or Mr. Dotson that were used in the report there  
17 is a note on there that shows the picture number which  
18 references the figure number within the report. The  
19 arrow is just kind of pointing to the general location  
20 and the view that the picture was taken from.

21          Q.    Can you show us from this Exhibit 183 where  
22 the pictures on your report identified as Figures 12 and  
23 13 are located?

24          A.    Those figures would be right there in that  
25 area (indicating).



1           Q.    As a matter of fact, the circles that have 12  
2           and 13 on them, they correspond with the photographs  
3           that are in the report, correct?

4           A.    Yes, sir, that's correct.

5                       MR. FRIEDMAN:  Plaintiffs offer Exhibit  
6           183.

7                       MR. MARQUAND:  No objection, Your Honor.

8                       THE COURT:  So admitted.

9                       (Exhibit No. P-183 was received in  
10           evidence.)

11           Q.    While you still have that up, I'm going to ask  
12           you to compare them.  Did you tell us that you  
13           recognized Exhibit 349?

14           A.    Yes, sir, I recognize this exhibit.

15           Q.    You were asked to, you were asked I believe at  
16           your deposition whether or not that corresponded, those  
17           points on Exhibit 349 corresponded with the way points  
18           that are identified by Mr. Dotson.  Do you agree that  
19           they do?

20           A.    Yes, I believe I agree they are close in  
21           proximity to the way points.

22           Q.    And what is the reference?

23           A.    But this is not a map that I produced.

24           Q.    But it is a map that you are able to identify  
25           because it's a photograph and aerial photograph, right?

1           A.    Yes, sir.

2           Q.    And, you know, that is a good point,  
3 Mr. Buttram. I am not asking you especially with  
4 respect to Exhibit 349 to testify to any degree of  
5 engineering certainty that these way points are  
6 identical matches to the references of the way points  
7 that are identified in Plaintiff's Exhibit 189, okay. I  
8 preface it by this. As a general proposition, I believe  
9 you have already responded to my question that those  
10 points on Exhibit 189 correspond -- I was holding this  
11 sideways, Your Honor. I covered up with my own fingers  
12 the proper number. This color Google map you have is  
13 Exhibit 193. It has a deposition sticker on it too.

14               Now that I have killed all my momentum, let's  
15 go back and try to pick this up. The way points on  
16 Exhibit 193, they generally match, which is the point I  
17 was trying to make, Mr. Dotson's way points, don't they?

18           A.    Yes, sir.

19           Q.    And if you look, those way points at position  
20 23, that corresponds with the picture number Figures 12  
21 and 13 from your report, doesn't it?

22           A.    I think, as I stated in my deposition, with  
23 the way these, the labelling is on this drawing it is  
24 hard to tell what is corresponding to which opinion as  
25 it is shown on this.

1           Q.   Fair enough.  Would you agree with me,  
2   Mr. Buttram, that Mr. Dotson's references, specifically  
3   points 23 and 24 -- or I will take them one at a time.  
4   Specifically 23 corresponds with the photographs that  
5   you have in your report, Figures 12 and 13?

6           A.   Yes, sir, I believe that's correct.

7           Q.   And Mr. Dotson refers to those figures in 12  
8   and 13 as a slough, doesn't he?

9           A.   "Slough road washout."

10          Q.   Now, you did not use those terms in your  
11   report, did you?

12          A.   I believe I used "washout."

13          Q.   Okay.  You used "washout," but you didn't use  
14   the term "slough"?

15          A.   That's correct.

16          Q.   Who told you to leave the term "slough" off  
17   your final report, if anyone?

18          A.   At the time of writing the report I discussed  
19   things with Mr. Albright.  I can't say that anybody told  
20   me to leave the word "slough" out.

21          Q.   You told us that you discussed it with  
22   Mr. Albright, but you never discussed it with  
23   Mr. Dotson, did you?

24          A.   No, sir.

25          Q.   You got Mr. Dotson, the man who wrote the

1 prior report, calling it a slough, the man whose report  
2 you were writing on to issue your report referring to a  
3 picture as a slough, but for some reason that I am not  
4 clear on, it was decided to leave it off the  
5 description?

6 A. Yes, sir, when you are out on inspections you  
7 see things and note things down. When you go back you  
8 think about these things. As Mr. Albright and I were  
9 looking back through the pictures and everything, this  
10 shows an erosion washout with maybe the sides are  
11 sloughing a little bit.

12 Q. If we can pull those pictures 12 and 13, if we  
13 can pull those up again, I would like to follow up on  
14 that. It's Exhibit 179. Now, the view on the left-hand  
15 side is the view looking up slope, right? According to  
16 your figure there?

17 A. Yes, sir, that's correct.

18 Q. And you see the ground, the area where my  
19 finger touched and where that arrow was presented, you  
20 see that above the gully feature right there or what I,  
21 what Mr. Dotson referred to as a slough?

22 A. I see the washout area, yes, sir.

23 Q. And up above it it looks like there is  
24 undisturbed area, doesn't it? You see up above it going  
25 to the crest of the dike?

1           A.    That would be the next slope going up, sir.

2           Q.    The next slope.  There is no gully on that  
3 next slope going up, is there?

4           A.    From this picture, no, sir.

5           Q.    It certainly doesn't look like it, would you  
6 agree?

7           A.    Yes, sir.

8           Q.    So, whatever is causing that washout, as you  
9 call it, or slough, as Mr. Dotson referred to it, it is  
10 beginning right there in the middle of the dike, isn't  
11 it?

12          A.    It looks like it's beginning at the crest and  
13 you will notice in my report there were other areas  
14 where benches had either silted up and they were  
15 overflowing off the side.  This is a case where it has  
16 rained and the bench may be not be sloping back in  
17 toward the toe or the next level so it is washing over.

18          Q.    So thought this was created by a rain event?

19          A.    Yes, sir.

20          Q.    As you look downward on the side the slide  
21 right beside it, it gradually disappears as far as the  
22 indentation.  Would you agree with that?

23          A.    The clarity of these pictures is hard.  I  
24 believe there is some that is, it does follow down in  
25 there.

1           Q.    It follows for a while and then it goes back  
2 to what I would say a disturbed state. Can you agree  
3 with that? Looking down at the bottom of the picture.  
4 On the right-hand side viewing downward. The top of the  
5 picture viewing downward would be actually the bottom of  
6 the hill or the bottom of the embankment, correct?

7           A.    Yes, sir, you are looking down the slope.

8           Q.    And as you go down the slope the gully gently  
9 eases out, or the slough, right?

10          A.    Yes, sir, the washout, it does ease out.  
11 There is more rills -- from the clarity of this picture  
12 you would probably see rills.

13          Q.    When you saw that picture, did you see signs  
14 of water coming through the dike?

15          A.    At the time of the inspection in the front of  
16 this picture, there are no signs of water coming  
17 through.

18          Q.    You just saw the indentation there?

19          A.    Yes, sir.

20          Q.    Now, the conclusion that was reached, even  
21 though you didn't agree with the term being a slough,  
22 the conclusion that was reached here is that this needed  
23 to be repaired immediately, fair enough? I mean, that  
24 is the written word you have right there. "This area  
25 should be repaired immediately by filling with clay and

1 6 inch lifts and compacting." Did I read that  
2 correctly?

3 A. Yes, sir, that's correct.

4 Q. That was the conclusion that you reached in  
5 agreement with Mr. Albright, correct?

6 A. In this draft, yes, sir, that's the conclusion  
7 that was reached.

8 Q. You are way ahead of me. In this draft that  
9 is what it says. Let's look at Exhibit 180. While you  
10 are getting that out, I am going to ask you a question  
11 that I think will be easy for you to answer. We have  
12 four drafts in successive order. They begin with  
13 Exhibit 179, and then they go to 180, 181 and 182, is  
14 that right? I think we have covered that. You have the  
15 four in front of you.

16 May I withdraw that question and ask another  
17 one?

18 THE COURT: Go ahead.

19 BY MR. FRIEDMAN:

20 Q. Mr. Buttram, do you remember making several  
21 drafts of your report before it was made final?

22 A. Yes, I do remember making several drafts.

23 Q. And the process, the exercise of actually  
24 writing this report was done following the coal ash  
25 disaster of December 22, 2008. This is after the

1 disaster happens you are going about putting this report  
2 together, right?

3 A. Yes, sir, that is correct. The report was  
4 written after the disaster.

5 Q. You knew before the disaster you were going to  
6 be responsible or tasked with writing it?

7 A. Yes, sir, that is correct.

8 Q. As you went through it, it went through a  
9 drafting process where you went through several drafts,  
10 correct?

11 A. Yes, I wrote the report. Then I had a peer  
12 review with Mr. Albright. He reviewed it and then my  
13 supervisor at the time, Barry Snider, reviewed the  
14 report.

15 Q. And as a result of that there are four drafts  
16 before we get to the final. I hope you have got those  
17 in front of you, 179, 180, 181, 182. We just talked  
18 about 179.

19 I would like to ask you to go to 180 and tell  
20 us if that is also a draft of the report, and one that  
21 followed 179.

22 A. Yes, sir, 180 would follow 179.

23 Q. Now, in the order of things you do the first  
24 draft and then you give the draft to your supervisor and  
25 he checks it, right?



1           A.    I would have done a draft and I would have  
2           given it to Mr. Albright. That would not definitely be  
3           significant to what these drafts represent.

4           Q.    Excuse me?

5           A.    The order of review doesn't necessarily  
6           represent what these drafts here represent.

7           Q.    Okay.

8           A.    I did these, these drafts were tracked for my  
9           knowledge so I would know what has changed from time to  
10          time. It doesn't correspond necessarily after a certain  
11          someone's review.

12          Q.    Fine. That's fair enough. Who was the first  
13          person who you gave your draft to look at? Was that  
14          Mr. Albright?

15          A.    That would have been Mr. Albright.

16          Q.    After we look at 179 let's look at 180 and  
17          specifically I want you to go to page 6 where we are  
18          talking about the washout on the dike bench that  
19          Mr. Dotson referred to as a slough.

20          A.    Yes, sir, I am there.

21          Q.    Now, if we can, the language that was quoted  
22          from 179 I believe it is the same. You see that?

23                   MR. MARQUAND: We'll stipulate it's the  
24          same.

25                   MR. FRIEDMAN: Thank you.

1 BY MR. FRIEDMAN:

2 Q. That would read that "the area of the 12 and  
3 13 needed to be repaired immediately," correct?

4 A. Yes, sir, that's correct.

5 Q. That would tell us in the logical order of  
6 things that Mr. Albright agreed with your language for  
7 the need for those immediate repairs correct?

8 A. Yes, sir, and that is what I was referencing  
9 to before. This draft Exhibit 180 would have been after  
10 Mr. Snider's review.

11 Q. Mr. Snider or Mr. Albright --

12 A. Mr. Snider.

13 Q. So it wasn't what Mr. Albright reviewed?

14 A. His edits may have come in 179 or I may have  
15 done them. That is what I am saying. The track changes  
16 were for my benefit as I did things. I may have  
17 overwritten some of the drafts after reviews.

18 Q. I am not trying to stand on anything other  
19 than to show Mr. Albright helped you write it,  
20 Mr. Snider looked at it and then it went through another  
21 step. That is what I am trying to get at. Media  
22 Relations looked at your drafts, didn't they?

23 A. Yes, sir, that's correct.

24 MR. FRIEDMAN: I want to offer Plaintiff's  
25 Exhibit 180.

1 THE COURT: So admitted.

2 (Exhibit No. P-180 was received in  
3 evidence.)

4 BY MR. FRIEDMAN:

5 Q. I ask you to look at Exhibit 181. If you  
6 would identify this as another one of your drafts, sir.

7 A. Yes, sir, this is another one of my drafts.

8 Q. And if you look at Page 6, which would be the  
9 same area we have looked at in the last two drafts, I  
10 believe we will find a change in the language there. In  
11 the right-hand column you will see a program. Can you  
12 tell the Court what that is? I call it a program. It  
13 is a document-changing feature. Is that right?

14 A. Yes, sir, it's just a function that you can  
15 use within the program of Microsoft Word when you are  
16 tracking changes.

17 Q. You can track when a document is changed,  
18 can't you?

19 A. Yes, sir, that's correct.

20 Q. And what is the word from Exhibit 181, page 6  
21 that is deleted?

22 A. That would be "immediately."

23 Q. That was taken out by Media Relations, was it  
24 not?

25 A. No, sir. That word was not taken out by Media

1 Relations.

2 Q. You took it out?

3 A. I reviewed any suggestions that came to this  
4 report.

5 Q. Media Relations suggested that it come out?

6 A. Yes, sir.

7 Q. Now, do you know and can you tell the Court  
8 what experience in geotechnical inspections that TVA  
9 Media Relations has?

10 A. Sir, I am not aware that they had any.

11 Q. Did TVA Media Relations have anything to do  
12 with telling you what should or should not have been  
13 done with regard to your inspections?

14 A. As far as how we did the inspection, no, sir,  
15 they did not provide any guidance.

16 Q. Yet they were weighing in on what should go  
17 into the final report or recommending what should go in  
18 the final report?

19 A. Yes, sir, we knew it was going to go to a  
20 broader audience. They reviewed the report. I reviewed  
21 all suggestions and didn't allow it to change the  
22 substance.

23 Q. And I know you told us that, I believe, in  
24 your deposition. Maybe I got it from the Inspector  
25 General's interview. You don't think taking out

1 "immediately" changed the substance of your report?

2 A. At the time this report was submitted, no,  
3 sir, I do not.

4 Q. At the time you all were out there and you saw  
5 this washout what Mr. Dotson believed to be a slough,  
6 everybody was in agreement it needed to be repaired  
7 immediately?

8 A. Yes, sir. As Mr. Dotson was part of the  
9 Byproducts Disposal, he was aware it was there.

10 Q. But it wasn't repaired, was it?

11 A. I can't say if it was or not, sir. I was not  
12 told.

13 Q. But you knew, based on your knowledge as an  
14 engineer, that something like this didn't look good,  
15 right?

16 A. Just looking at the pictures, no, sir, it does  
17 not look good.

18 Q. And it needed to be repaired immediately,  
19 right?

20 A. Yes, sir, any type of erosion we would have  
21 repaired.

22 Q. But some erosion you put it's not a priority  
23 thing. A lot of times you didn't use the word  
24 "immediately," but here you did and it wasn't done, was  
25 it?

1           A.    Sir, I can't say if it was done or not.  I was  
2 not told.

3           Q.    You do agree that it was your intention, along  
4 with Mr. Albright, that it should have been done  
5 immediately, right?

6           A.    Yes, it should have been repaired.

7           Q.    You told me in the deposition to you  
8 immediately means right then as soon as possible, do you  
9 agree with that?

10          A.    I would say immediately means as soon as  
11 possible, yes, sir.

12          Q.    You knew that on October 20th, 2008, didn't  
13 you?

14          A.    Yes, sir.  I knew this was there and that it  
15 needed to be repaired as soon as possible.

16          Q.    No, immediately.  Immediately is the word you  
17 used, right?

18          A.    Immediately is the word I used in the report,  
19 yes, sir.

20                   MR. FRIEDMAN:  Now, we offer Plaintiff's  
21 Exhibit 181.  I want to go over one more with you.

22                   THE COURT:  So admitted.

23                   (Exhibit No. P-181 was received in  
24 evidence.)

25 BY MR. FRIEDMAN:

1           Q.    This is Exhibit 182. Can you identify that as  
2 the final draft? I believe this is the one, this is  
3 different from the others because it has an executive  
4 summary on the front.

5           A.    Yes, I recognize this as another draft of what  
6 would have been the final.

7           Q.    And 182 does add the executive summary?

8           A.    Yes, sir.

9           Q.    Whose idea was it to add the executive  
10 summary?

11          A.    TVA Media Relations.

12          Q.    When you were out there on that day in October  
13 did you have any checklist to work off of? In other  
14 words, a list of things you needed to look for and check  
15 off a list as you went?

16          A.    No, sir, I was not given any type of check  
17 list. I was with John Albright who had been on these  
18 inspections.

19          Q.    Did Mr. Albright or Mr. Dotson have a  
20 checklist?

21          A.    Not to my knowledge they did not.

22          Q.    Since the inspection has it come to your  
23 attention there was a checklist?

24          A.    No, sir.

25          Q.    Never heard of that before?

1           A.    No, sir, I have not heard of a checklist.

2           Q.    There were other references for immediate  
3 repairs that needed to, that you found during your  
4 inspection that were included in your original report  
5 that were removed at the recommendation of Media  
6 Relations, weren't there?

7           A.    Yes.

8           Q.    I give you an example.  The photograph that  
9 you took in your final report of the floating coal  
10 ash -- I believe looking at your final report there is a  
11 picture on Page 4.

12          A.    Yes, sir, that would be Figure 3.

13          Q.    Picture 3.  If you can bring that up.  This is  
14 Exhibit 191, Picture 3.

15                Now, at the time you did your draft you  
16 included that the floating ash from that pond needed to  
17 be removed immediately, right?

18          A.    Initially in the report I had written it  
19 needed to be removed immediately.

20          Q.    That was removed at the suggestion of Media  
21 Relations?

22          A.    After the suggestion, yes, sir, I removed it  
23 on my own accord.

24          Q.    And then there was another reference to  
25 another area that you referred to as a washout.  If you



1 look at, if you will go back to your original draft  
2 Exhibit 179, Page 5 of that. There is a reference to a  
3 washout, I believe. You see where I am talking about?

4 A. Page 4?

5 Q. I believe it is Page 5. No, it is -- I am  
6 sorry it is Page 4. I misspoke. You see right there it  
7 is I believe it is referencing Figure 8. You see that?

8 A. Yes, sir, that's correct.

9 Q. Where was that picture taken?

10 A. This picture was taken, if we could go to the  
11 general sketch I could give -- it is taken off the  
12 interim dredge cell on the east side.

13 Q. Let's look at Exhibit 183. We'll bring it up  
14 on your screen, Mr. Buttram. Does that help you?

15 A. Yes, sir.

16 Q. Tell us where, if you can, where Figure 8 or  
17 Photograph 8 was taken, if you can point to that circle  
18 for the Court.

19 A. In that circle area there, which is on the  
20 east side of the interim dredge cell.

21 Q. That would be at an upper elevation, would it  
22 not?

23 A. It was going down the slope. It was from a  
24 down drain that they had there from an underdrain.

25 Q. Your commentary in regards to that was "due to

1 extensive erosion in one area an erosion washout of two  
2 feet wide by twenty feet long by two feet deep had  
3 formed. This area should be repaired immediately." Did  
4 I read that correctly?

5 A. Yes, sir, you did.

6 Q. And can you testify without having to go back  
7 through the drafts as to whose recommendation that the  
8 term "immediately" was removed?

9 A. That came, that suggestion came at the same  
10 time as the other reference to remove the word  
11 "immediately."

12 Q. Wouldn't it be a fair statement to say that  
13 anything that you put in your report that had to do with  
14 immediate action to make repairs to that dike the term  
15 "immediately" was removed at the suggestion of Media  
16 Relations?

17 A. Yes, sir, I can say that the word  
18 "immediately" was suggested to be removed.

19 Q. All right. Repeatedly as to anything that you  
20 designated in your report for immediate action needed to  
21 be taken out?

22 A. Yes, sir, with regard to this came after the  
23 spill. The emphasis wasn't there any more.

24 Q. Right. The emphasis, but the emphasis was  
25 there in October of 2008, now, wasn't it?

1 A. Yes, sir, the proper people knew about it.

2 Q. I believe you made the, you have either  
3 testified or maybe told me that the whole purpose of  
4 using the term "immediately" was to get the attention of  
5 the people in maintenance, fair enough?

6 A. That's correct.

7 Q. You wanted to reach out to them and get their  
8 attention, right?

9 A. Yes. As you were reading the report, you  
10 would want to use words to emphasize certain things,  
11 that's correct.

12 Q. After placing this emphasis on that work that  
13 needed to be done, let's go ahead and tell us what you  
14 did to make sure that this immediate maintenance was  
15 done. You made it known to somebody, right?

16 A. Yes, as I said, Jamey Dotson, who is part of  
17 the Byproducts Disposal Group helped in maintaining  
18 those dredge cells was there and knew about it. We also  
19 were dealing with James Settles that day and had  
20 discussion.

21 Q. You all sought out Mr. Settles, right?

22 A. We ran into him on the day of the inspection.

23 Q. You ran into him. Okay. Was it your  
24 intention to make somebody at the plant know about these  
25 maintenance items that needed to be addressed?

1           A.    Yes, sir, Mr. Dotson deals with them. That  
2 was in his area of his job, I believe. He was a  
3 Byproducts representative that day.

4           Q.    Who is Mr. Settles? Tell the Court who is he  
5 is.

6           A.    Mr. Settles, to my knowledge, was, I believe,  
7 the field supervisor for the dredge cells.

8           Q.    Was he directed to make the repair, the  
9 immediate repairs that are reflected on your reports  
10 right then in October of, October 20th, 2008, while you  
11 were present on the scene?

12          A.    I can't recall.

13          Q.    I guess that question may not have come out  
14 right. Did you communicate the information or was it  
15 communicated in your presence to Mr. Settles that these  
16 repairs are here and they need to be taken care of  
17 immediately?

18          A.    We did communicate with him. I can't recall  
19 exactly the full discussion and what all was  
20 communicated to him that day.

21          Q.    In substance was the information that is in  
22 your report or your draft report, was that information  
23 communicated to Mr. Settles?

24          A.    I can't say exactly all that information was  
25 communicated to him.

1           Q.    What about the washout or slough on the north  
2 dike that we started this point in the examination with.  
3 Was that information imparted to Mr. Settles that it was  
4 maintenance that needed to be taken care of immediately?

5           A.    As I said, I am not sure exactly what  
6 communication was stated to him.

7           Q.    Other than your report, how was that  
8 information to get to maintenance through Jamey Dotson?

9           A.    Mr. Dotson spoke, Mr. Dotson as part of the  
10 Byproducts Group, his group would have been doing some  
11 of those repairs.

12          Q.    Are you assuming he would have taken care of  
13 it or do you know he was directed, as by yourself as the  
14 engineer writing up this report, that this is  
15 maintenance work that needs to be done?

16          A.    I can't say he was directed to do it, no, sir.

17          Q.    The fact is this was your first inspection,  
18 you were just trying to learn it the best you could.  
19 You weren't in a position to direct anybody to do  
20 anything, were you, Mr. Buttram?

21          A.    I can't say I wasn't in a position to direct.  
22 I would have discussed it with the people that it needed  
23 to be discussed with.

24          Q.    But you didn't, did you?

25          A.    I can't say what all communication was done

1 that day.

2 Q. The very next month TVA sent you out again as  
3 a lead engineer for another dike inspection, didn't  
4 they?

5 A. Sir, I wasn't the lead engineer at Kingston.

6 Q. No, no. I am not, we have already gone  
7 through that disagreement. I am not talking about  
8 Kingston now.

9 A. You said "again."

10 Q. Okay. I apologize for my wording. Let me try  
11 it again. You don't even need Mr. Marquand. You are  
12 getting pretty good at this. I don't mean to make light  
13 of it.

14 You did another inspection didn't you, a dike  
15 inspection after Kingston, correct?

16 A. Yes, sir, that's correct.

17 Q. All right. Were you the lead inspector on  
18 that inspection?

19 A. Yes, sir, I was the only representative  
20 engineer from my group out there. I would have been the  
21 lead engineer for that.

22 Q. And that took place less than a month after  
23 the Kingston inspection?

24 A. I can't recall exactly how long -- it was in  
25 November, 2008.

1           Q.    You didn't have any, do additional study work  
2           or training between the Kingston inspection and the  
3           Tuscumbia inspection, right?

4           A.    Yes, sir, it was out at the Colbert Fossil  
5           Plant.

6           Q.    Right out of Tuscumbia, Alabama, Colbert  
7           County. You didn't have any training since you did that  
8           inspection in October at Kingston and the time that you  
9           went to Colbert, correct?

10          A.    No, sir. There was no extra training in  
11          between those two inspections.

12          Q.    I don't mean extra training. There wasn't any  
13          other training, was there?

14          A.    No, sir.

15          Q.    Okay. But yet you were the lead inspector on  
16          that one?

17          A.    Yes, sir, I was the lead inspector.

18          Q.    Had you finished your report on the Colbert  
19          inspection by the time of the disaster of December 22,  
20          2008?

21          A.    No, sir. That report hadn't been written  
22          either.

23          Q.    I want you to look at Plaintiff's Exhibit  
24          1484. Before you say anything about it, I want you to  
25          take a look at it and tell me if you can identify it.

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1 Mr. Settles, have you ever seen Exhibit 1484 before? I  
2 mean, Mr. Buttram. I am sorry.

3 (Exhibit No. P-1484 was marked for  
4 identification.)

5 A. I can't recall that I have seen this specific  
6 exhibit, no, sir.

7 Q. Okay. I want to ask you this. Have you  
8 attended any safety seminars on evaluation on existing  
9 dams?

10 MR. MARQUAND: Objection, Your Honor.  
11 This deals with matters post spill. It deals with post  
12 remedial measures and certainly isn't relevant in this  
13 case.

14 MR. FRIEDMAN: May I respond Your Honor?

15 THE COURT: Yes.

16 MR. FRIEDMAN: It is post spill. It  
17 happened after this spill. We're offering it for  
18 another purpose. That would be feasibility,  
19 availability of training. For information purposes,  
20 other than to show that this should have been done  
21 before the inspection or before the October inspection,  
22 just the fact that there's training available out there.

23 THE COURT: I will sustain the objection  
24 to the question as asked, but allow you to pursue  
25 questioning along the lines that you suggested.



1 BY MR. FRIEDMAN:

2 Q. From the time you were hired at TVA, I believe  
3 it was July of 2008, thereabouts, right?

4 A. Roughly. It was at the end of June, yes, sir.

5 Q. June did you say?

6 A. At the end of June.

7 Q. Up until October of with 2008, were you ever  
8 given any training in examination of embankment dams?

9 A. No, sir. I never attended any training on  
10 embankment dams.

11 Q. Were you ever given any training in emergency  
12 action planning, early warning systems, overtopping  
13 protections, repair or evaluation of earthen  
14 embankments?

15 A. No, sir.

16 Q. Did you ever attend any classes either within  
17 TVA or put on by a third party concerning stability  
18 inspections of ash pond dikes?

19 A. No, sir, I had none prior to my first  
20 inspection.

21 Q. Does TVA have any kind of recurrent training?

22 A. Yes, sir, we have annual training that we go  
23 through. As a PE I seek out continuing education that I  
24 have to keep up with to have my licenses.

25 Q. As part of any of the work that you have done

1 at TVA, have you had any training whatsoever prior to  
2 October or even December of 2008, for that matter, in  
3 anything related to stability inspections or maintenance  
4 of earthen embankments?

5 A. No, sir. In that respect I didn't have any  
6 training from TVA.

7 Q. Going back to the stability report that you  
8 did -- I am talking about the final copy. This one is  
9 Exhibit 191. If you go to the very back of it. I don't  
10 mean very back. I want to talk about Page 11. As you  
11 get there, that is a list, is it not, of things to be  
12 done pursuant to the annual inspection?

13 A. Yes, sir, that would be the recommendations  
14 page.

15 Q. And the recommendation page, is that not a  
16 summary of the actions -- I believe it would cover pages  
17 11 and 12 of recommendations for instructions concerning  
18 maintenance that result from your actual inspection in  
19 this case, the October inspection.

20 A. Yes, sir, these would be the recommendations  
21 that came from, that were listed in the report itself  
22 from the October inspection.

23 Q. And if you knew one or more of the things that  
24 are on the list had already been completed, they  
25 wouldn't be on the recommendation list, would they? Or

1 would they?

2 A. I would say that they could since that's what  
3 we had seen at the time of the inspection.

4 Q. So there could be things on there that were  
5 repaired already, but maybe not? Or you have no way of  
6 knowing?

7 A. None -- this hasn't been discussed with  
8 anybody what had been done at the time of writing this  
9 report.

10 Q. The report that you actually had out there on  
11 October 20th of 2008, that is Exhibit 188, and your  
12 notes appear on Exhibit 188 I believe on Page 9 of that.  
13 It is on your screen, if you can follow along.

14 A. Yes, sir.

15 Q. The way you went about making this report  
16 which is the final report that we have here that I have  
17 been asking you about, Exhibit 191, is you simply took  
18 this old inspection report and started writing on it,  
19 right? Or writing on portions of it?

20 A. I used the old inspection report as a  
21 template.

22 Q. When you say used it as a template, you used  
23 the '08 report as the basis of the '09 report, correct?

24 A. I used it as a template so I would know so I  
25 could follow the same format and everything. Yes, there

1 was some pieces left in as historical references to the  
2 report.

3 Q. You left some of the actual language from  
4 2008, or borrowed or left it in for reference to be  
5 included in '09?

6 A. Yes, sir.

7 Q. All right.

8 Now, if you look to Page 11, excuse me, Page 8  
9 on the recommendation pages of Exhibit 188. How many of  
10 those recommendations that were in existence on Page 8  
11 of Exhibit 188 did you bring over and make again or  
12 repeat on your final report, Exhibit 191. Have you ever  
13 stopped to compare those?

14 A. No, sir, I don't know I have stopped to  
15 compare them exactly.

16 Q. Do you have a recollection of simply moving  
17 action items or recommendations from the year 2008 over  
18 and adopting them in the 2009 report?

19 A. Yes, sir, some of the routine type  
20 recommendations would have been used again.

21 Q. And those would be things repeated year after  
22 year from one report to the another, correct?

23 A. Yes, sir, just to keep as a reminder to  
24 continue doing those things.

25 Q. I want to change gears, if I may, and ask you

1 about some of your other responsibilities that aren't  
2 stability inspection related. I believe your testimony  
3 was you took over a program in July or August of 2008  
4 where you would take over data input for water levels in  
5 the dikes?

6 A. I took over the responsibility of yes,  
7 receiving the monitor data from TVA Environmental  
8 Engineering. I would receive it monthly. Once  
9 receiving it I would place it into the program that was  
10 in an Excel spreadsheet created by Geosyntec. Once that  
11 data was entered, I would check to see what the levels  
12 were in regard to the ground surface.

13 Q. If you would, please, I want to ask you if you  
14 would kindly look at Plaintiff's Exhibits 186 and 1552.  
15 I ask you if you would identify those for the record.

16 (Exhibit Nos. P-186, 1552 were  
17 marked for identification.)

18 A. Exhibit 186 and Exhibit 1552 look to be the  
19 roles and responsibilities that were created by me after  
20 receiving this responsibility. It was kind of our  
21 action plan.

22 MR. FRIEDMAN: Offer Exhibits 186 and  
23 1552, Your Honor.

24 THE COURT: So admitted.

25 (Exhibit Nos. P-186, 1552 were

1 received in evidence.)

2 BY MR. FRIEDMAN:

3 Q. Did you say you created both of these?

4 A. No, sir. Well, yes, sir, I did. Looking at  
5 them now, 186 is the one that I produced. I do not  
6 remember adding the color representational graph that is  
7 labeled on 1552.

8 Q. Let's look at 186 first then, okay.

9 A. Yes, sir.

10 Q. This is a document that you created sometime  
11 after you got there. It would be what, August of '08?

12 A. Yes, sir, it was around August of '08.

13 Q. And would you read the first sentence into the  
14 record.

15 A. "In November of 2006 excessive seepage and  
16 piping was discovered at the toe of the dike of Dredge  
17 Cell 3."

18 Q. And then it goes on, "to help with the  
19 investigation and repair of the toe, 33 piezometers and  
20 a dewatering well system were installed." Did I read  
21 that right?

22 A. Yes, sir.

23 Q. And the next sentence, I want to ask you about  
24 this. It says, "the piezometers and dewatering wells  
25 were used to determine and monitor the groundwater level

1 at the time." Did I read that right?

2 A. Yes, sir, that's correct.

3 Q. Were piezometers and wells in place used by  
4 the TVA in 2008 to monitor the buildup of water in  
5 dikes?

6 A. Can you restate that question?

7 Q. I am asking if that sentence is correct. Were  
8 the piezometers and dewatering wells used to determine  
9 and monitor the groundwater levels at the time. Were  
10 those used in 2008, when you took over the program, to  
11 monitor water buildup in the dikes?

12 A. This sentence comes from the background  
13 information trying to explain the initial purpose of the  
14 piezometers. Why they were put in was to help to  
15 understand the groundwater level before they did the  
16 repair in that area.

17 Q. Okay.

18 A. After the repair was over having that data,  
19 having those piezometers there, they were just decided  
20 to leave it in to have that data so that the groundwater  
21 could be still be monitored and looked at.

22 Q. Let's look at Exhibit 1552. How is Exhibit  
23 1552 different, if at all, from Exhibit 186? Are these  
24 the same or are they different? One has a date at the  
25 bottom in the place of current contacts. 1552 has a

1 date of August 4th, 2008, and current contacts and has  
2 yourself and Mr. Matt Williams, is that right?

3 A. Yes, sir, on the last page it has Mr. Dotson.  
4 1552 has the Kingston PEU was added and her contact  
5 information as well.

6 Q. 186 had Jamey Dotson. The second page of 1552  
7 has some additional information, is that right?

8 A. Yes, sir.

9 Q. That is how they differ?

10 A. Yes, sir.

11 Q. Did you create both of these documents?

12 A. No. I was the initial creator of it. I can't  
13 be certain that I would have, but I think I would have  
14 because I was in essence the owner. I was asked to  
15 create this so we could kind of have an action or roles  
16 and responsibilities between the different TVA groups  
17 that were using this data.

18 Q. Let's look at the responsibilities outlined.  
19 Under TVA Environmental Services under both documents it  
20 says in the first bullet point that "TVA Environmental  
21 Services is responsible for monitoring the wells and  
22 piezometers on a monthly basis." Did I read that right?

23 A. Yes, sir.

24 Q. Did TVA monitor the wells and piezometers at  
25 Kingston on a monthly basis?



1           A.    To my knowledge, sir, yes, they did.

2           Q.    Did they monitor the wells and piezometers on  
3 the north side of the dredge cell?

4           A.    My responsibilities were for the west side.  I  
5 would receive -- the data I received was two  
6 spreadsheets.  My role was to monitor the piezometers  
7 and dewatering -- I received data for the piezometers  
8 and dewatering well points for the west side.  That was  
9 the data my responsibility was to monitor.

10          Q.    Mr. Buttram, do you know if anyone in the TVA  
11 was responsible for monitoring the wells and piezometers  
12 on the north side of the dredge cell, the place at the  
13 dredge cell where the failure occurred in 2008?

14          A.    To my knowledge, sir --

15          Q.    At the time you were with TVA.

16          A.    No, sir, at the time I did not know that  
17 anybody was responsible for monitoring those wells.

18          Q.    Did you know there were even any wells located  
19 on the north side?

20          A.    From our inspection and pictures we had  
21 pictures of the wells.  They were there.  They were  
22 monitoring wells.  They weren't piezometers that we  
23 used.  I knew those wells were there.  I didn't know the  
24 function of them.

25          Q.    These rules and regulations they say they

1 don't differentiate between wells and piezometers, do  
2 they?

3 MR. MARQUAND: Objection.  
4 Mischaracterization. These aren't rules and  
5 regulations. This is a document the witness typed up.

6 MR. FRIEDMAN: The witness testified these  
7 are documents the witness typed up to outline  
8 responsibilities.

9 A. Yes, sir, it says --

10 THE COURT: All right. Well, I will  
11 overrule the objection. Mindful, this isn't a jury  
12 trial, but the same in a bench trial questions of  
13 counsel are not evidence. The evidence comes from the  
14 witness stand. Go ahead.

15 BY MR. FRIEDMAN:

16 Q. You did draft these outlined responsibilities,  
17 didn't you?

18 A. Yes, sir, as I said, these were if you read in  
19 the background information the piping and seepage was  
20 discovered at the Dredge Cell 3. Dredge Cell 3 didn't  
21 go to the north dike. It was on the west. These  
22 piezometers and well points mentioned here were on the  
23 best dike. That is what the roles and responsibilities  
24 were created for.

25 Q. Are you telling the Court that the

1 responsibility to monitor wells and piezometers ended at  
2 the west dike?

3 A. To my knowledge, this is what I was given to  
4 do. Beyond that I do not know, sir.

5 Q. And these responsibilities that you drafted in  
6 these two exhibits, that only pertained to the west  
7 dike, right, if I understand you correctly?

8 A. These roles and responsibilities, yes, sir,  
9 were corresponding with the monitoring on the west dike.

10 Q. Mr. Buttram, point out for the Court where  
11 either one of these documents limited responsibilities  
12 to the west side.

13 A. I believe with the background which references  
14 the 33 piezometers and dewatering wells on the west  
15 side. I can't understand why we would give background  
16 information for that and point the responsibility to the  
17 other wells without mentioning them here.

18 Q. You would have to have an understanding of the  
19 background in order to understand the limitation you are  
20 testifying about. Is that what you are telling us?

21 A. Yes, sir, and then if you also see it says for  
22 more information you can see Geosyntec's report which  
23 would outline the repairs and installation of these  
24 piezometers that these roles and responsibilities are  
25 outlined.

1           Q.   Did you ever read that report, Mr. Buttram,  
2   that you are talking about, the Geosyntec's report?

3           A.   Yes, I went through it to give me some  
4   background information on the reasons that these  
5   piezometers and the dewatering well system was in place.

6           Q.   You weren't even provided with your own copy  
7   of that, were you?

8           A.   No, sir, I didn't have any own copy. I had  
9   access to hard copies.

10          Q.   You just happened to see come information in  
11   that, but never reviewed the whole report, did you?

12          A.   I can't say I reviewed the exact full report,  
13   no, sir. I did review the report.

14          Q.   Now, you weren't aware until you got out there  
15   on the inspection in October of 2008 that there were  
16   monitoring wells on the north side?

17          A.   I can't say that I knew that the data that I  
18   received -- I received two sets of data. I can't say  
19   that the data that I received had the wells from the  
20   north side, no, sir.

21          Q.   I appreciate that answer. I was trying to  
22   make my question a little more limited. I know you say  
23   you didn't know the data you received, that you were to  
24   input -- maybe I tell you what. Let me back up and try  
25   to make a clear record on what you were doing. You

1 would get data from Mr. Williams from time to time,  
2 right?

3 A. Yes, sir, on a monthly basis.

4 Q. Who was Mr. Williams with?

5 A. Mr. Williams was with the TVA Environmental  
6 Engineering.

7 Q. You would take that information and manually  
8 yourself put it into a spreadsheet, electronic  
9 spreadsheet, right?

10 A. Yes, sir, it was a program within an Excel  
11 spreadsheet that Geosyntec designed.

12 Q. I have heard that referred to as a warning  
13 system. Have you ever heard that type description used  
14 for the Geosyntec spreadsheet?

15 A. No, sir, I haven't heard that description used  
16 for it at all.

17 Q. The information in the spreadsheet was put  
18 there to let the people reviewing it know whether water  
19 was building up behind the dikes or within the dikes,  
20 correct?

21 A. I think initially it was created to help them  
22 understand the water flow while they were doing the  
23 repairs, allow them to see if the water was being pulled  
24 down low enough so they could start the repair not  
25 underwater. Then after they made the repair, it was

1 left in place to be used as monitoring.

2 Q. And the repair you are talking about followed  
3 the blowout that occurred in 2006, right?

4 A. Yes, sir, that would be correct.

5 Q. Okay. You know this monitoring is going on to  
6 provide information to avoid another similar blowout?

7 A. I believe the information was used not just in  
8 reference to that, but it was just data that was there  
9 so you have the extra data that's continued to take it  
10 and utilize it.

11 Q. And you input that once a month into the  
12 spreadsheet and it would come out on a graph?

13 A. Yes, sir.

14 Q. And it would have different arrows to show  
15 whether or not water was building up too high within the  
16 dikes?

17 A. Yes, once I inputted the data, it would plot  
18 out on a chart.

19 Q. It was color coded so if you had a reading in  
20 the red, what would that tell you?

21 A. A reading in the red would mean that a  
22 piezometer was showing water over the ground surface,  
23 above the ground surface.

24 Q. Now, let's talk about at the time going back  
25 now with that background of you inputting data into the

1 Geosyntec well monitoring and piezometer system. Do you  
2 remember seeing well points on the north side of the  
3 dike, the dike that failed, the dredge cells that  
4 failed, when you were out there on October 20th, 2008?

5 A. Yes, sir, I saw the well points out there.

6 Q. And one of the well points that you saw had  
7 been closed off for the purpose of an inspection to take  
8 place, right?

9 A. Yes, sir. A week before -- normally before  
10 their monthly data gathering they would try to close the  
11 valves on the dewatering wells.

12 Q. You went and looked at a particular well on  
13 the north side didn't you?

14 A. As we were inspecting we came upon the wells,  
15 one in particular.

16 Q. If you would, I apologize. Had you completed  
17 your answer, sir?

18 A. Yes, sir.

19 Q. Tell the Court what you saw, when you looked  
20 at the well that had been closed off for monitoring  
21 purposes?

22 A. The dewatering wells when you close the valve  
23 they were allowed to drain freely down the slopes. When  
24 you closed their valves the water pressure would build  
25 up and they would overflow out the top. The dewatering

1 wells were used for that purpose of dewatering the area.  
2 They were screened about 20 feet below which could cause  
3 in some instances some artesian effect which is having a  
4 water pocket under somewhat of an impermeable area.  
5 These watering wells cannot be used to monitor the  
6 groundwater surface.

7 Q. What is phreatic pressure?

8 A. Phreatic pressure?

9 Q. Yes.

10 A. Your phreatic surface is just the groundwater  
11 surface you have flowing under the ground.

12 Q. And a phreatic water level in the dikes would  
13 tell you the level of the water that was in the dike,  
14 within the dike, wouldn't it? It would tell you how  
15 high that is, correct?

16 A. Yes, sir, could monitor that with certain  
17 instruments of which we use the drive-point piezometers  
18 out there, but we didn't use the well points. It  
19 specifically states on the program that I have that  
20 these wells were not to be used for monitoring the  
21 groundwater.

22 Q. All right. You are getting way ahead of me.  
23 I'm trying to catch up with you now. The piezometers  
24 that you use, when those are overflowing, those tell you  
25 that the phreatic surface or water within the dikes is.



1 When the piezometers are overflowing, it tells you you  
2 are at a critical level, right?

3 A. Yes, sir, if I saw a Piezometer overflowing I  
4 would expect to be seeing it coming out the dike. That  
5 wasn't there.

6 Q. I am not saying what you saw or didn't saw. I  
7 am trying to talk about in general terms what it means  
8 when you have a piezometer which is pipe going down in  
9 the ground built a certain way to let you measure water.  
10 When you see that water coming out of it, it tells you  
11 it's a warning that our phreatic level is approaching  
12 saturation, correct?

13 A. Yes, sir.

14 Q. All right. Now, from what I gather you don't  
15 believe the same is true with respect to wells, is that  
16 right?

17 A. For these dewatering wells that were out  
18 there, no, sir, I don't believe they were with that  
19 respect.

20 Q. But yet you all have listed wells to be  
21 monitored on the two exhibits that you created, 1552 and  
22 186, to be monitored on a monthly basis?

23 A. Yes, sir, we had the instruments there. We  
24 went ahead to grab the extra data, but not to be used in  
25 the sense of monitoring the groundwater level.

1           Q.    And the well point photo that you took, do you  
2 recall where that was taken in your report? We can get  
3 that out, if we need to. I want to make that clear on  
4 the record. Do you remember where that was?

5           A.    I can't recall exactly where along the west  
6 dike it was.

7           Q.    It was on the west dike though?

8           A.    Yes, sir.

9           Q.    Now, to make the record clear, you didn't know  
10 whether or not any data was being inputted from  
11 monitoring wells on the north part of the dike, did you?

12          A.    From my role and responsibility in the  
13 spreadsheet that Geosyntec created, that did not include  
14 the monitoring wells on the north side.

15          Q.    I want to ask you if you would look at -- I  
16 have a couple of housekeeping matters here before I  
17 finish this line of questioning. I would like to, if  
18 you would, please, just take a minute and see if you can  
19 identify Exhibits 3609, 606, and 1585. Have you had a  
20 chance to look at those?

21                   (Exhibit Nos. P-3609, 606, 1585  
22                   were marked for identification.)

23          A.    Yes, sir, 3609, 606 and 1585?

24          Q.    Right. Let's start with 606. Can you  
25 identify that for the record?

1           A.    Yes, sir, this would be the output you would  
2   see after entering the raw data that is received from --

3           Q.    Offer Plaintiff's Exhibit 606, Your Honor.

4                   MR. MARQUAND:   No objection.

5                   THE COURT:    So admitted.

6                   (Exhibit No. P-606 was received in  
7                   evidence.)

8   BY MR. FRIEDMAN:

9           Q.    Can you explain for us with the page that you  
10   have there in front of you what this exhibit is and how  
11   you use it as part of your duties at TVA?

12          A.    I wouldn't actually input data into the sheet  
13   you see in front of you.  This is just the output that  
14   is created from the data.  It reads information from  
15   another worksheet in that spreadsheet.

16          Q.    After you manually put in data into the  
17   program, this is one of the things that is produced?

18          A.    Yes, sir.

19          Q.    Can you identify Exhibit 1585 for the record.

20          A.    1585 looks to be a sheet with the directions.  
21   It also has the worksheet tab of where the data, the raw  
22   data would have been entered.

23          Q.    You would, this would be the program set up by  
24   Geosyntec on which you could electronically enter the  
25   data provided to you by Mr. Williams, is that correct?

1           A.    Yes, sir, most of these pages I am familiar  
2 with.   Some of them in the back -- just with not seeing  
3 it all in one sheet, it's hard to tell if they are all  
4 from that program.

5           Q.    If we printed it out, it would reach from one  
6 side of the courtroom to the other.   We had to break it  
7 up.   These are all data points that would be entered  
8 manually, is that right?

9           A.    Yes, sir.

10          Q.    When you entered, for example, in the very  
11 back of the exhibit if you would go to like the fourth  
12 page from the back.   You see that spreadsheet.   You will  
13 see entries.   There are entries on this sheet.   Many of  
14 them would say, "dry."   Do you see that?

15          A.    Yes, sir.

16          Q.    Would you manually input a designation that  
17 would say dry?

18          A.    Yes, sir, I would.   You have to put dry, if no  
19 data was received from that piezometer.

20          Q.    Would that apply to a piezometer that was  
21 broken, for example, that you got no data on?

22          A.    Yes.

23          Q.    Okay.   So you would be entering designations  
24 as dry for piezometers that in actuality weren't  
25 functioning?

1           A.    Yes, sir, for the program to work you had to  
2   enter "dry," if no data was received for a piezometer.

3                   MR. FRIEDMAN:   Offer Plaintiff's Exhibit  
4   1585.

5                   MR. MARQUAND:   No objection.

6                   THE COURT:    So admitted.

7                           (Exhibit No. P-1585 was received  
8                   in evidence.)

9   BY MR. FRIEDMAN:

10           Q.    Would you identify Plaintiff's Exhibit 3609  
11   for the record, please.

12           A.    Did you want me to read it?

13           Q.    Would you identify it?

14           A.    This is an e-mail from Matt Williams from  
15   November, it's the November, 2008 readings.

16           Q.    This would be the data in Exhibit 3609 that  
17   you would enter into Exhibit 1585?

18           A.    Yes, sir, that is correct.

19                   MR. FRIEDMAN:   Now, this exhibit which we  
20   would offer, Plaintiff's Exhibit 3609, Your Honor.

21                   THE COURT:    So admitted.

22                   MR. MARQUAND:   Your Honor, he has only  
23   identified the first page.  We ask -- there is two other  
24   documents attached to that first page.  There has been  
25   no identification of those documents.

1 THE COURT: You want to identify those?

2 BY MR. FRIEDMAN:

3 Q. Can you identify the information that is  
4 contained in addition to the e-mail?

5 A. These two Excel spreadsheets attached were the  
6 raw data. It was raw data that was sent to me. I  
7 utilized the KIF dredge cell piezometers I believe is  
8 the ones I would input into the Geosyntec.

9 Q. You received this and manually input it in  
10 Exhibit 1585 in the ordinary course of your business and  
11 responsibilities at TVA, correct?

12 A. Yes, sir.

13 MR. FRIEDMAN: Offer 3609 at this time.

14 MR. MARQUAND: No objection.

15 THE COURT: So admitted.

16 (Exhibit No. P-3609 was received  
17 in evidence.)

18 BY MR. FRIEDMAN:

19 Q. Let's look at the date on this exhibit. It's  
20 dated December 18th, 2008, is that right?

21 A. Yes, sir, that is correct.

22 Q. And that was provided to you by Matt Williams?

23 A. Yes, sir.

24 Q. Mr. Buttram, where were you on Thursday,  
25 December 18th? Were you working in the office then?

1           A.    I can't exactly recall, but to my knowledge I  
2   should have been in the office.

3           Q.    Was this information provided to you late?

4           A.    I can't recall exactly the date I would  
5   receive the monthly information. I can't say that if it  
6   was late how late it would have been.

7           Q.    It says here in the first line, "sorry for the  
8   delay." You see that?

9           A.    Yes, sir.

10          Q.    "I have been holding on this until Paul Smith  
11   got another chance to investigate the site. You will  
12   notice several piezometers from the KIF piezometers and  
13   well points that do not have any information and it says  
14   (blacked out)." Did I read that correctly?

15          A.    Yes, sir.

16          Q.    Does that help refresh your recollection as to  
17   what was going on at the time?

18          A.    Somewhat, yes, sir.

19          Q.    Tell us what was going on then.

20          A.    Well, just by reading the e-mail they seem to  
21   be late because they wanted to go back and get a better  
22   understanding which ones were destroyed to keep better  
23   track so we could get them repaired.

24          Q.    What did do you then when you received this  
25   information? Did you input it?

1           A.    The information for the destroyed --

2           Q.    Just the information that they did provide to  
3   you?

4           A.    Yes, sir, I can't say I input it exactly that  
5   day, but within a couple of days I would.

6           Q.    I am sorry. I am not meaning to talk over  
7   you. I apologize. Were you finished? You said, I  
8   think I heard you say you did it in a couple of days?

9           A.    I would try to do it within a couple of days,  
10   yes, sir.

11          Q.    Do you know if you inputted this information  
12   that is represented in Exhibit 3609 prior to the dike  
13   failure on December 22, 2008?

14          A.    I can't recall if I input it before the dike  
15   failure or not.

16          Q.    Did you do any type of analysis of the  
17   information, when you put it in?

18          A.    No, sir, there is no analysis required beyond  
19   inputting the data and checking the levels on the chart.

20          Q.    Did you during your time inputting data did  
21   you ever have any red flags or have any points in the  
22   red area showing that the dikes were saturated with  
23   water?

24          A.    The time that I had entered it there were no  
25   piezometers that entered into the red zone.



1           Q.    Mr. Buttram, why would anyone after the dike  
2           failure and the disaster in December 22, 2008, why would  
3           anyone want to go back in and alter the Geosyntec forms  
4           that would tell you whether or not you had a reading in  
5           the red? Do you know?

6           A.    No, sir. I am not sure. I don't recall that  
7           being done.

8           Q.    Well, why would you ask Geosyntec for the  
9           password to their program so you could go back in and  
10          mess with it or alter it?

11          A.    The well points that I have stated which were  
12          not in regards to monitoring the water level, as can be  
13          seen on the output, since they were showing in the red  
14          just to add more clarity to the chart we wanted to  
15          remove the well points. Those well points could be  
16          removed without a password.

17          Q.    Let's see if I got this right. After the dike  
18          failure on December 22, 2008, you were going back into  
19          the spreadsheets trying to take out readings where your  
20          wells were showing red or warnings, is that what you  
21          were doing?

22          A.    No, sir, they were not showing warnings. If  
23          they had been showing warnings, I would have alerted the  
24          people at the time.

25          Q.    They were showing wells in the red weren't

1 they?

2 A. If we can go to Exhibit 606 I would like to  
3 refer you to the note at the bottom.

4 Q. Okay. You can refer me to that.

5 A. "Under the site specific condition the well  
6 points may indicate equipotential levels higher than the  
7 ground surface and should not be compared against the  
8 water level thresholds, i.e., color of water level  
9 legend."

10 These wells were screened 20 feet to 25 feet  
11 in the ground to whereas the piezometers were screened 5  
12 feet below grade surface. This program was set up to  
13 monitor the piezometers. After the failure these well  
14 points could make some of the readings hard to see for  
15 the piezometers. To get better clarity on the chart, we  
16 took the well points out.

17 Q. It wouldn't just make readings hard to see.  
18 They would make the evidence hard to live with, wouldn't  
19 they, Mr. Buttram?

20 A. No, sir.

21 Q. You had documents that said, Exhibits 1552 and  
22 186, that said you are responsible for monitoring wells  
23 and piezometers in a document you created. Wells were  
24 monitored and in fact you never thought to take them out  
25 of your spreadsheet until after the disaster. Then you

1 went and asked for Geosyntec to give you the password  
2 that no one at TVA was supposed to have to go back and  
3 change the evidence. That is what happened, isn't it?

4 A. No, sir. I told you what happened.

5 Q. Let me show you Exhibit 1584. Do you recall  
6 getting this e-mail? While you are doing that, if you  
7 would, look at Exhibit 1555. 1555 I believe comes first  
8 in chronological order. It is an e-mail to you from  
9 Jamey Dotson dated Saturday January 3rd, 2009.

10 Now, at this point in time that was a hectic  
11 time for your department following the dike disaster,  
12 wasn't it, Mr. Buttram?

13 (Exhibit Nos. P-1555, P-1584 were  
14 marked for identification.)

15 A. Sorry. I was reviewing the documents.

16 Q. January 9th, or January 3rd, it's right after  
17 the new year. Of course, it follows the December dike  
18 failure. That was a very busy time for you in your  
19 department, wasn't it?

20 A. Yes, sir, it was.

21 Q. You all had been working nonstop, weren't you?

22 A. Yes, sir, we were working diligently to  
23 remediate.

24 Q. And you got an e-mail from Jamey Dotson to  
25 tell you, "Chris, you still have one well point showing

1 in red in August of 2008. Doesn't this need to be  
2 removed? I believe this should only show the well  
3 points."

4 According to him he is writing to you about  
5 taking out well points that are reading in red. Is that  
6 the way he's writing you?

7 A. Sir, I cannot recall what this e-mail was  
8 referring to at the time. No, sir, I do not believe he  
9 was asking me to remove anything.

10 Q. "You still have one well point showing in the  
11 red in August of 2008." Do you remember taking out well  
12 points that read, that indicated readings in the red?

13 A. As I have explained already, the time that I  
14 took out the well points was just to give clarity. I do  
15 not recall -- we didn't remove well points out of the  
16 red just so there was nothing in the red.

17 Q. Okay. Whatever your motivation for doing it,  
18 it was taken out. Can we agree on that?

19 A. No, sir, based on this e-mail I can't say I  
20 took anything out from it.

21 Q. Let's look at the next e-mail. I think it  
22 might help you. That is an e-mail of a couple of days  
23 later. I guess at top of the sheet there as an e-mail  
24 from you dated Thursday, January 8th, 2009 to  
25 Mr. Richard Christian and a Ronald Hall. Do you see

1 that?

2 A. Yes, sir.

3 Q. What are you providing, what form of  
4 information are you providing to them?

5 A. It looks like I am providing a spreadsheet, a  
6 password for a spreadsheet. I am not certain to what  
7 extent this was for.

8 Q. Well, if you look down under it it says,  
9 "Hello, Chris." This is from Geosyntec to you. "The  
10 password to unlock the groundwater monitoring sheet is  
11 'geosyntec' typed in lower case. You will also need to  
12 unhide and unlock the three data calculation  
13 spreadsheets." You don't remember getting this from  
14 Geosyntec?

15 A. I do remember corresponding with them. Yes, I  
16 remember the e-mails. I don't have a for sure  
17 recollection of what this e-mail was intending.

18 Q. And you have no idea what you were asking for  
19 on January 7th, what you were asking for this password  
20 for?

21 A. Yes, sir, I knew why I needed the password.

22 Q. Now we are getting somewhere. You needed the  
23 password to get into this program to take out the well  
24 points, fair enough?

25 A. Yes, sir.

1                   MR. FRIEDMAN: Your Honor, I may be  
2 through if I can have a minute to confer. Can we take  
3 an afternoon break now?

4                   THE COURT: Why don't we take our  
5 afternoon break then you can finish up if you need,  
6 otherwise we'll come back with examination by the TVA.  
7 We'll take our afternoon recess of 15 minutes.

8                   (Off the record.)

9                   (Back on the record.)

10                  THE COURT: Mr. Friedman, anything  
11 further?

12                  MR. FRIEDMAN: I have a different line of  
13 questioning and some housekeeping matters on exhibits,  
14 may it please the Court.

15                  I had clipped three exhibits together and  
16 I believe Mr. Buttram looked at all three of them. I  
17 want the record to be clear. I want to offer them.  
18 Exhibit, Plaintiff's Exhibit 3609 was an e-mail dated  
19 December 18th, 2008. I questioned Mr. Buttram on the  
20 information that was provided to him by Matt Williams.  
21 The information that I had clipped to that e-mail is  
22 actually two separate exhibit numbers.

23                  If I may ask the witness to review those  
24 and confirm that those are the information that was  
25 provided to him by Mr. Williams along with the e-mail.

1 We would offer Exhibits 3610, and 3611. I don't believe  
2 there is objection to it.

3 (Exhibit Nos. P-3610, 3611 were  
4 marked for identification.)

5 MR. MARQUAND: If the witness can identify  
6 each one, that would be great. We would not object at  
7 that point.

8 BY MR. FRIEDMAN:

9 Q. I guess what we need you to do is to look at  
10 those two exhibits. Can you find them? They were  
11 attached to the memo you were talking about, we were  
12 discussing. I believe they are attached.

13 THE COURT: It might be with 3609, if you  
14 have 3609 pulled.

15 THE WITNESS: My 3609 only has three  
16 copies of 3609 with just one sheet.

17 BY MR. FRIEDMAN:

18 Q. Then if you would, please, look at 3610 and  
19 3611. I believe that was the information that  
20 Mr. Williams forwarded. We need you to confirm that, if  
21 would, please, sir.

22 Your Honor, while he's looking at that, the  
23 plaintiffs would offer Exhibits 1555 and 1584. Those  
24 are the e-mails between Mr. Buttram and Mr. Dotson and  
25 the representative of Geosyntec.

1 THE COURT: 1555 and 1584, any objection?

2 MR. MARQUAND: No objection to 1584. No  
3 objection to 1555.

4 (Exhibit Nos. P-1584, 1555 were  
5 received in evidence.)

6 THE COURT: Both those are admitted. Now  
7 we are looking at 3610 and 3611.

8 THE WITNESS: I cannot locate 3610 or  
9 3611.

10 BY MR. FRIEDMAN:

11 Q. Mr. Buttram, this Exhibit 3609, it does  
12 reference that there are two attachments with it, does  
13 it not, in the attachment portion of the e-mail? You  
14 see that?

15 A. Yes, sir, that is correct.

16 Q. And typically the attachments you would  
17 receive would show up as the appearance of graphs?

18 A. These attachments would have the raw data in  
19 them, but they would have charts within the spreadsheets  
20 as well.

21 Q. Mr. Buttram, if you would, identify for the  
22 record the two exhibits that have been handed you, 3610  
23 and 3611. Tell us if those are the two attachments that  
24 accompanied the e-mail you received from Matt Williams  
25 on December 18, 2008.



1           A.    These appear to be the attachments that I  
2   received for the monthly reading of November, 2008.

3                   MR. FRIEDMAN:   Thank you.

4                   MR. MARQUAND:   No objection to 3610 or 11.

5                   THE COURT:    So admitted.

6                   (Exhibit Nos. P-3610, 3611 were  
7   received in evidence.)

8   BY MR. FRIEDMAN:

9           Q.    Mr. Buttram, we have covered a lot of ground  
10   today. I am about to wrap up. I need to ask you, if I  
11   could, sir, do you remember speaking with a man who has  
12   been identified as an expert in this case for TVA? His  
13   name is William Walton or Bill Walton. Do you remember  
14   speaking with him?

15           A.    Yes, sir, I have spoke with him.

16           Q.    And he has talked to you on occasions about  
17   what you saw out there at the Kingston facility during  
18   your October inspection, correct?

19           A.    Yes, sir. We have had discussions on the  
20   inspection.

21           Q.    And at one point Mr. Walton sent you an  
22   e-mail, I believe, and if you would look at Exhibit 196  
23   and tell us if that is the e-mail you received or a copy  
24   of the e-mail you received from Mr. Walton.

25                   (Exhibit No. P-196 was marked for

1 identification.)

2 A. Yes, sir. I recall receiving this e-mail.

3 Q. This is an e-mail dated Saturday, June 20th,  
4 2009, from Mr. Bill Walton to yourself, Jamey Dotson,  
5 and others at TVA, is that right?

6 A. Yes, sir, that is correct.

7 Q. And the subject of the e-mail is your October  
8 2008 inspection, correct?

9 A. Yes, sir.

10 Q. And the subject of this e-mail is some  
11 questions that TDEC had about the pictures from the  
12 inspection, did I state that right?

13 A. Yes, sir, that's correct. There were I  
14 believe two or three pictures they referenced.

15 Q. Do you remember what pictures were referenced?

16 A. No, sir, I believe there is an e-mail that  
17 specifies the time stamp of which pictures they were  
18 referring to.

19 Q. The point of Mr. Walton's question to you in  
20 this June 20th, 2009, e-mail that I would like to ask  
21 you about is in the very last sentence beginning with  
22 "again." It says "again, we did not see from your  
23 photos and inspection report that there was visible or  
24 spoken evidence of slides, sloughs or subsidence." Did  
25 I read that correctly?

1           A.    Yes, sir.

2           Q.    And then if you turn the page of Exhibit 196  
3 there is a follow-up e-mail to the group, the TVA group,  
4 from Jamey Dotson asking "did anyone respond to Bill  
5 Walton's inquiry?" Do you see that?

6           A.    Yes, sir.

7           Q.    And following that you took it upon yourself  
8 to call him to respond, remember?

9           A.    Yes, sir.

10          Q.    And if you turn the page, I guess if you turn  
11 to the fourth page you see something from Mr. Snider.  
12 Does that reference the photo that was the subject of  
13 your conversation with Bill Walton?

14          A.    Yes, our conversation was a discussion of this  
15 TDEC matter, his review of our report.

16          Q.    Did it involve any of the photographs from the  
17 north dredge cell?

18          A.    The photos in the TDEC e-mail I don't believe  
19 referenced any from the north dredge cell.

20          Q.    When Mr. Walton asked you and your group for  
21 confirmation that there were no visible or spoken  
22 evidence of slides, sloughs or subsidence, was his  
23 question based on the photograph that is reflected here  
24 pertaining only to the south side of the dike?

25          A.    Sorry, I can't recall the exact conversation,

1 what all photos were discussed. I know the three in  
2 question here would have been discussed, but beyond that  
3 I am not exactly for sure which photos in general were  
4 discussed.

5 Q. If you turn the page you actually confirmed  
6 for Mr. Walton his request, didn't you?

7 A. Yes, sir, based on our conversation.

8 Q. If you would, look at Exhibit 2894. That is  
9 dated Monday, June 22nd, and you are telling the rest of  
10 the people in your group that you just spoke with Bill  
11 on the phone and you discussed his e-mail, right?

12 (Exhibit No. P-2894 was marked for  
13 identification.)

14 A. Yes, sir.

15 Q. And did you confirm for him that on your  
16 October inspection that your group did not see any  
17 evidence of slides, sloughs or subsidence?

18 A. I can just go with what this e-mail says. I  
19 mean, we had a conversation, of course. I can't recall  
20 the exact what was said in that conversation. This  
21 confirmation was based on a conversation we had. I  
22 can't recall that conversation to this date.

23 Q. So you have no recollection of the substance  
24 of the conversation?

25 A. Yes, sir.

1           Q.   All right.  There is and we know from Exhibit  
2 189 and the way points that were recorded by Jamey  
3 Dotson, there is at least four references to slough  
4 conditions, referencing slough out there at the time of  
5 your inspection.  One of the references to slough is as  
6 to the north dike that collapsed, correct?

7           A.   Mr. Dotson does have the description of  
8 slough.  I can't come confirm his definition of a  
9 slough.

10          Q.   Because you all never went over a definition.  
11 We understand all that.  The references are in the  
12 document.  The point of my question is this.  Did you  
13 ever make that information known to Mr. Walton at the  
14 time he was making his inquiry here?

15          A.   Mr. Walton was welcome to all information out  
16 there.  I can't say at this time we discussed these  
17 points in general.

18          Q.   Now, when you, and I am wrapping his up, when  
19 you first put your report together did you ever attempt  
20 to make it appear that you had prepared your inspection  
21 report for the stability of the Kingston dikes before  
22 the failure of the dikes occurred?

23          A.   Could you state that again.  I am sorry.  I  
24 misunderstood the question.

25          Q.   If you would, look at Plaintiff's Exhibit 185.

1 Do you recognize that page?

2 (Exhibit No. P-185 was marked for  
3 identification.)

4 A. Yes, sir, I do.

5 Q. Read that statement into the record, please:

6 A. "Subsequent to the inspection and the writing  
7 of this report catastrophic failure at the north end of  
8 the dredge cells occurred. The cause of the failure is  
9 currently under investigation."

10 Q. Now, that statement is incorrect, isn't it?

11 A. Yes, sir, that is an incorrect statement.

12 Q. Who corrected it?

13 A. After one of the reviews it was noted, found  
14 that it was written in the wrong context.

15 Q. Wrong context being you didn't write your  
16 report until after the dike failure, did you?

17 A. Correct. The report was written after the  
18 dike failure.

19 MR. FRIEDMAN: Plaintiffs would offer  
20 Exhibits 196 and 2894, representing the Walton memos.

21 THE COURT: Any objection?

22 MR. MARQUAND: No objection to 196. I  
23 didn't hear the other numbers.

24 THE COURT: 2894.

25 MR. FRIEDMAN: 2894.

1 MR. MARQUAND: No objection to 2894.

2 THE COURT: So admit both documents.

3 (Exhibit Nos. P-196, 2894 were  
4 received in evidence.)

5 MR. FRIEDMAN: The final exhibit is 166  
6 which is a page from the draft -- 185, I apologize.

7 THE COURT: 185?

8 MR. FRIEDMAN: Yes, Your Honor.

9 MR. MARQUAND: No objection to Plaintiff's  
10 Exhibit 185.

11 THE COURT: So admitted.

12 (Exhibit No. P-185 was received in  
13 evidence.)

14 MR. FRIEDMAN: Nothing further, Your  
15 Honor.

16 THE COURT: Thank you, cross-examination.

17 **CROSS EXAMINATION**

18 MR. MARQUAND: May it please the Court,  
19 Brent Marquand for defendant TVA.

20 THE COURT: Thank you. You may proceed.

21 BY MR. MARQUAND:

22 Q. Mr. Buttram, you were asked about the July 8th  
23 2009, interview that you participated in that was  
24 conducted by two individuals from TVA's Office of  
25 Inspector General. Was there a transcript of that

1 interview?

2 A. No, sir, not that I am aware.

3 Q. Was it recorded?

4 A. Not that I am aware of.

5 Q. Were you provided a copy of a statement to  
6 review?

7 A. No, sir.

8 Q. I would like to direct your attention to  
9 Plaintiff's Exhibit I believe it's 189. I believe  
10 during your testimony you said there was some confusion  
11 about some of the numbers. 189, can you tell us what it  
12 is again, please?

13 A. Yes, sir, if you look on the second page and  
14 you look to the far left at the row of numbers --

15 Q. Tell me, what is 189?

16 A. 189 is the way points that Jamey Dotson sent  
17 to me after the inspection.

18 Q. And Column A is what?

19 A. Column A is the location and date.

20 Q. And so rows, 2 through 20 are what location?

21 A. Looking at the spreadsheet, they would be for  
22 Widow's Creek.

23 Q. Does that have anything to do with your  
24 October 20th, 2008 inspection?

25 A. No, sir, those way points would not be for



1 Kingston.

2 Q. And which way points have anything to do with  
3 the Kingston inspection?

4 A. The Kingston inspection would be rows 21  
5 through 30.

6 Q. Were they designated as certain way point  
7 numbers?

8 A. Yes, sir, column B has the way point number.

9 Q. So, way point number 20 is in which row?

10 A. Way point 20 corresponds to row 21.

11 Q. Is that the confusion you were taking about?

12 A. Yes, sir, if you move to the next page there  
13 is no way for me to tell if the row number specified on  
14 page 3 were the actual way point numbers.

15 Q. Row 20 is not a Kingston way point?

16 A. If the row numbers correspond to each other,  
17 yes, sir, row 20 would not be a Kingston way point.

18 Q. Counsel asked you to count how many or  
19 actually I think he asked you and said are there four  
20 sloughs shown here on the Kingston way points, is that  
21 correct?

22 A. From what I recall, yes, sir.

23 Q. Look at this and tell me.

24 A. Yes, if row 20 is included, that would be.

25 Q. I thought row 20 would be a Widow's Creek way

1 point?

2 A. If row 20 is excluded, which it should be for  
3 Widow's Creek, there would be three mentioned.

4 Q. Now, I heard you say something about an  
5 AutoCAD drawing with respect to these, right?

6 A. Yes, sir, when I began preparing for my report  
7 I tried to, I placed these way points on to an AutoCAD  
8 drawing of the dredge cell to give me a reference of the  
9 positioning of where these were located.

10 Q. And I am going to show you a page out of  
11 Plaintiff's Exhibit 192. It's identified as TVK-278219.  
12 Can you tell us what that page is?

13 A. Yes, sir, that looks to be the AutoCAD drawing  
14 which is a topographic map of the dredge cell that has  
15 the way points plotted.

16 Q. And how are the way points indicated on that  
17 particular AutoCAD drawing?

18 A. Way points are indicated by a circle with the  
19 cross through it and it has the number and description  
20 under it.

21 Q. Did you add the circles during your  
22 deposition?

23 A. Yes, sir, the colored circles were added  
24 during my deposition.

25 Q. All right.

1 MR. MARQUAND: Your Honor, we would tender  
2 page TVK-278219 out of Plaintiff's Exhibit 192 at this  
3 time.

4 THE COURT: So admitted.

5 MR. FRIEDMAN: No objection.

6 THE COURT: So admitted.

7 MR. MARQUAND: That should be TVA Exhibit  
8 193.

9 (Exhibit No. D-193 was received in  
10 evidence.)

11 BY MR. MARQUAND:

12 Q. Mr. Buttram, when you wrote your report did  
13 you identify in your report any of the places that  
14 Mr. Dotson had noted in his way points as the sloughs?

15 A. In my report none of the way points that  
16 Mr. Dotson noted as sloughs, we didn't call them sloughs  
17 in the inspection report. They were noted in the report  
18 as erosion areas.

19 Q. You didn't call them sloughs?

20 A. We didn't call them sloughs.

21 Q. I show you what you have previously testified  
22 to as Figure 8 in Plaintiff's Exhibit 191. Is that one  
23 of the areas that was noted by Mr. Dotson in his way  
24 points as a slough?

25 A. Yes, sir, that is one of the areas that was

1 noted as a slough.

2 Q. What did you call it?

3 A. I called it an erosion washout.

4 Q. Did you have any training in erosion?

5 A. Yes, sir, my engineering experience prior to  
6 TVA at the other consulting firms that I worked at I  
7 received several training classes on erosion and  
8 sediment control, understanding water erosion, how it  
9 was caused and what it would do.

10 Q. Do you have any certifications in erosion?

11 A. I received Level 1 and Level 2 Tennessee  
12 Inspector certifications for erosion, GCI certification  
13 in Alabama, also had a Georgia 1B certification in  
14 Georgia, and also Thompson Engineering I at one time had  
15 a license as a CPES which is a Certified Professional  
16 Erosion and Sediment.

17 Q. I believe in your report you identified this  
18 as "erosion washout 2 feet by 20 feet long by two feet  
19 deep," is that correct?

20 A. Yes, sir, that is how it is stated in the  
21 report.

22 Q. When your report was peer reviewed by  
23 Mr. Albright, did anyone disagree with your  
24 characterization of that area as an area of erosion?

25 A. No, sir, I don't recall anybody having any

1 problems with just calling that an erosion area.

2 Q. Let me show you Page 7 of Plaintiff's 191.  
3 Did you identify those as areas of erosion?

4 A. Yes, sir, those areas were identified as just  
5 an erosion washout.

6 Q. Had Mr. Dotson identified those in his way  
7 points as sloughs?

8 A. Mr. Dotson identified it as a "slough road  
9 washout."

10 Q. And where in the area of the ash disposal  
11 facility was that particular photograph taken? Can you  
12 point to it on this, on Plaintiff's Exhibit 193?

13 A. I believe it was somewhere in this.

14 Q. It was on the north dike?

15 A. I was on the north dike in this general area  
16 there.

17 Q. Okay. Counsel asked you about whether or not  
18 there was erosion above or below this particular  
19 washout. I have here a photograph which is from TVA  
20 Exhibit 34. It is TVK-277812. What is that area along  
21 above the washout. Can you tell us --

22 (Exhibit No. D-34 was marked for  
23 identification.)

24 A. That would be the bench.

25 Q. For the Court, for all of us, what is a bench?

1           A.    As these facilities are raised upstream they  
2 will create a bench level which is a flat/semiflat area  
3 usually sloped in so it can drain without washing over  
4 the sides. These benches also allow vehicles to travel  
5 upon them around the facility.

6           Q.    And I believe in your testimony that you said  
7 that it was something about this bench or something  
8 about the crest of this bench being tilted one way or  
9 another. Can you explain that, please?

10          A.    Yes, sir, for this erosion washout to happen,  
11 the bench was not properly sloped back into the toe. It  
12 was sloped a little bit back out towards the outer  
13 slope.

14          Q.    It was sloped down from the --

15          A.    I was sloped down, yes, sir, from the toe of  
16 the upper slope there. If any rain occurred, it would  
17 all drain to this area and concentrate, which then would  
18 cause this erosion washout.

19          Q.    Can we see the area where it is sloped down in  
20 this particular photograph?

21          A.    It looks to be directly above that erosion  
22 area there.

23                   MR. MARQUAND: Your Honor, we tender  
24 TVK-277812, which is a part of TVA Exhibit 34.

25                   MR. FRIEDMAN: No objection.

1 THE COURT: So admitted.

2 (Exhibit No. D-34 was received in  
3 evidence.)

4 BY MR. MARQUAND:

5 Q. Now, I am going to show you the photograph  
6 looking the other direction on that particular feature.  
7 It is TVK-277811 of TVA Exhibit 34. Is that looking  
8 down slope?

9 A. The picture is looking up the slope.

10 Q. Up the slope?

11 A. It's further down.

12 Q. I believe counsel asked you if you could see  
13 the continuation of the erosion. Can you see it in this  
14 photograph?

15 A. I can see where the water has washed down and  
16 has turned the grass down some. Directly from this  
17 picture you can't see the full bottom of the slope. You  
18 can see how the erosion carries on down to about the mid  
19 slope there.

20 Q. Is there any doubt in your mind, when you saw  
21 this feature, that this was erosion, as opposed to  
22 subsidence or a slide?

23 MR. FRIEDMAN: Objection to leading.

24 THE COURT: I will sustain the objection.

25 BY MR. MARQUAND:

1           Q.   Did you see any evidence of any slides or  
2 subsidence in your inspection?

3           A.   No, sir, there was no evidence of any slides  
4 or sloughs out there. Everything that we saw was mainly  
5 erosion or where the water had concentrated and was  
6 causing a little bit deeper erosion.

7           Q.   When you removed the word "immediately" from  
8 the drafts of your report with respect to the different  
9 features which you initially said should be repaired  
10 immediately, did that change the substance of your  
11 report?

12          A.   No, sir, I did not believe it changed the  
13 substance of the report. The word "immediately" at that  
14 time was for emphasis and at the writing of this report  
15 and submittal of it there was no emphasis for those  
16 specific areas at that time.

17          Q.   Why not?

18          A.   Because the failure had happened and there  
19 were other things being done at Kingston at that time.  
20 These repairs and maintenance would not have been able  
21 to be done.

22          Q.   I wanted to ask you about your report, Exhibit  
23 191. You were shown the very last page of it. Can you  
24 tell us what that is?

25          A.   Yes, sir. That is a general sketch of the



1 area. It is not to scale, but it is just used as a  
2 reference. It had been used in prior reports to show  
3 the general location where photographs were taken during  
4 the inspection report.

5 Q. How accurate is this diagram with respect to  
6 the accuracy of the locations of the photographs?

7 A. The accuracy of this sketch is not very good  
8 because it doesn't have any of the bench levels around  
9 the dredge cell. It has just kind of got some general  
10 lines to kind of give the border areas of anything.  
11 These pictures are in very approximate locations just to  
12 kind of point the person in the right direction.

13 Q. Let me show you Plaintiff's Exhibit 1552.  
14 This is the groundwater monitoring system process that  
15 you put together. What was the, what groundwater was  
16 being monitored?

17 A. This document was created for the monitoring  
18 of the drive-point piezometers on the west dike. We  
19 would have been monitoring the groundwater on the west  
20 dike.

21 Q. Were you attempting to monitor any other  
22 monitoring wells or holes in the ground anyplace else  
23 besides the west dike?

24 A. No, sir, the responsibility stated here were  
25 solely for the monitoring of the west dike.

1           Q.   And why was, why had that system been put  
2 together?

3           A.   After they had the blowouts in 2003 and 2006  
4 to help with the repairs they installed these  
5 piezometers and well points first to help with the  
6 repair and then afterwards they used it as extra data  
7 just to continue to monitor the groundwater level on the  
8 west dike.

9           Q.   If you would, look at -- I want you to look at  
10 three plaintiff's exhibits, 3609, 3610 and 3611.

11          A.   I have them, sir.

12          Q.   Were there attachments to 3609?

13          A.   Yes, sir, there were two attachments to 3609,  
14 two Excel spreadsheets that contained the raw data from  
15 the inspector that went out and gathered it.

16          Q.   And do you have the two spreadsheets there?  
17 Are they 3610 and 3611?

18          A.   Yes, sir, 3610 and 3611 are the two  
19 attachments.

20          Q.   Take a look at them and tell me what data is  
21 in 3610.

22          A.   3610 has the data for the west dike for the  
23 piezometers and the well points.

24          Q.   Did you use that data?

25          A.   This is the data that I used and would input

1 into the spreadsheet that Geosyntec had created.

2 Q. What is Plaintiff's Exhibit 3611?

3 A. 3611 are monitoring wells.

4 Q. And where are those located?

5 A. To my knowledge all these monitoring wells are  
6 just located throughout the dredge cell.

7 Q. Did you use that data?

8 A. I did not use this data.

9 Q. Was that part of the data you were supposed to  
10 use in the Geosyntec program?

11 A. I had no responsibility with this data. The  
12 only data I used came from 3610.

13 Q. Can I have Plaintiff's Exhibit 606, please.  
14 If we could enlarge it. Do you see where it says well  
15 ID on the left-hand column?

16 A. Yes, sir.

17 Q. Does that correspond to the ID numbers in 3610  
18 or 3611?

19 A. These well IDs correspond to the IDs located  
20 in 3610.

21 Q. And Plaintiff's 606 is the Geosyntec output,  
22 right?

23 A. Yes, sir.

24 Q. Is there anyplace in that program to input the  
25 monitoring well data in Plaintiff's Exhibit 3611?

1           A.    No, sir.

2                   MR. MARQUAND:  No further questions.

3   Thank you, Mr. Buttram.

4                   THE COURT:  Thank you.

5                   Redirect?

6                   MR. FRIEDMAN:  Very briefly, Your Honor.

7                               **REDIRECT EXAMINATION**

8   BY MR. FRIEDMAN:

9           Q.    Mr. Buttram, we have kept you here a long  
10   time.  I appreciate your patience.

11                   Did I just hear you say you didn't see any  
12   sloughs, when you were out there that day in October?  
13   Is that your sworn testimony?  You want to change that  
14   answer?

15           A.    Well, based on what I know today, yes, sir, I  
16   did not see --

17           Q.    Excuse me.  What about what you wrote in your  
18   own notes?

19           A.    Yes, sir, I know that in my notes the word  
20   "slough" was mentioned.  At the time --

21           Q.    At the time you were out there you thought you  
22   saw a slough, didn't you?

23           A.    Yes, sir, I believe I stated that sloughs can  
24   be opinionated depending on who you ask.

25           Q.    Well, you had an opinion while you were out

1 there doing this inspection you saw a slough. Now you  
2 have an opinion that is changed because you are a  
3 witness in a case against the TVA? Is that what is  
4 changing your opinion?

5 A. No, sir. I was asked what I thought now. Did  
6 I see anything out there.

7 Q. When you were out there, at the time you  
8 thought you saw a slough. No question about that,  
9 right? When you were out there at the time doing this  
10 inspection, the one designated to write up the report,  
11 the annual stability report, you thought you saw a  
12 slough, right?

13 A. I wrote down a slough, but not a slough that  
14 would be associated with a slope failure, no, sir.

15 Q. You didn't include it in your report, did you?

16 A. No, I did not have my notes at the time I  
17 wrote the report.

18 Q. They just happened to be missing.

19 Now, let's just talk about real quick this  
20 business about all the deletions of the term  
21 "immediately" being taken out of the repairs in the  
22 final report. Did I understand your testimony that you  
23 didn't include "immediately" because the disaster  
24 occurred and there was no need to do maintenance out  
25 there any more? The pressing nature of it was all gone?

1           A.    No, sir, I felt that since the disaster had  
2 happened the word "immediately" did not add the emphasis  
3 that it would have prior to it. I didn't feel it  
4 changed the substance by removing the word  
5 "immediately."

6           Q.    In other words, there is no need to shut the  
7 barn door once the cow is gone, right? It is too late  
8 to do immediate repairs when the dike has failed, right?  
9 Is that what you are trying to tell the Court?

10          A.    I am just trying to say what I, my personal  
11 thought, what I thought at that time that the word  
12 immediately -- I'm not saying that the repairs still  
13 didn't need to be done. In essence it was stated in the  
14 report, I just didn't feel the word "immediately" added  
15 the emphasis at that time.

16          Q.    Well, I understand what you are saying because  
17 Exhibit 191, which is your final report, you have two  
18 pages of recommendations for maintenance that needed to  
19 be done on those dikes. We read through them. You  
20 still want maintenance to go on out there, but the  
21 urgency since the disaster occurred has passed. Can we  
22 agree on that?

23          A.    Yes, sir.

24                   MR. FRIEDMAN: No further questions, Your  
25 Honor.

1 THE COURT: Anything further,  
2 Mr. Marquand?

3 MR. MARQUAND: None, Your Honor.

4 THE COURT: Mr. Buttram, you may be  
5 excused.

6 MR. DAVIS: Your Honor, we have another  
7 witness we can start with today or we can wait until  
8 tomorrow. It's up to the Court.

9 MR. FRIEDMAN: Before Mr. Buttram leaves,  
10 we do not want to release Mr. Buttram from his subpoena.  
11 We ask that the witness, as it pertains to his  
12 testimony, remain sequestered.

13 THE COURT: Mr. Buttram, just so you are  
14 advised. You are still under subpoena. You may have  
15 been informed about the rules of sequestration. You  
16 should not discuss your testimony with other witnesses  
17 or potential witnesses or anyone else's testimony  
18 discussed with you in the event you may be recalled as a  
19 witness by either party in this case.

20 THE WITNESS: Yes, Your Honor.

21 THE COURT: Thank you. You are excused  
22 for now.

23 Why don't we go ahead and break. I have a  
24 few other matters to handle upstairs. We'll plan to put  
25 in a full day tomorrow. Why don't we start fresh. That

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1 way you can get all of the documents fresh and we'll  
2 start at 9:00 tomorrow, which would be September 20th.  
3 We'll see everybody here and try to get started right at  
4 9:00 a.m. on September 20th. Thank you.

5 (Court was recessed.)

6 I CERTIFY THAT THE FOREGOING IS AN ACCURATE  
7 TRANSCRIPT OF THE RECORD OF PROCEEDINGS IN THE  
8 ABOVE-ENTITLED MATTER.  
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